AN INVESTIGATION OF THE CHARACTERISTICS OF POLITICALLY CONNECTED DIRECTORS AND TAX AVOIDANCE STRATEGIES

A Dissertation

by

LISA-ANN MARIA POLACK

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Chair of Committee,	Michael Kinney
Committee Members,	Sean McGuire
	Sarah Rice
	Thomas Wehrly
Head of Department,	James Benjamin

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ABSTRACT

I investigate whether cross-sectional differences among politically connected directors are associated with differences in tax avoidance behavior. Recent research suggests that the presence of politically connected directors impacts firms' tax avoidance. However, it is likely that the influence of a politically connected director depends on the characteristics of the politically connected director. I extend this line of research and explore instances where the influence of politically connected directors on tax avoidance is likely to vary. First, I examine whether the political profile of political directors is related to firms' tax avoidance activities. Second, I examine whether the director's relationship to the political party in power impacts firms' tax avoidance. Finally, I examine whether the length of a director's government service influences firms' level of tax avoidance. I find evidence of an association between the characteristics of political directors and firms' tax avoidance strategies, but there is variation in the extent of the benefit that some politically connected directors provide. My study is the first study to attempt to empirically identify underlying mechanisms by which political directors influence firms' tax avoidance strategies.

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I. INTRODUCTION

Income tax represents a significant cost for many U.S. corporations. Despite its importance, there is substantial variation in the extent that firms avoid income taxes (Dyreng et al. 2008). Recent research finds that characteristics of individual board members, such as financial expertise (Armstrong et al. 2015; Robinson et al. 2012), and political connections (Kim and Zhang 2016; Brown et al. 2015) are associated with firms' tax avoidance activities. This study examines whether the characteristics of politically connected directors influence firms' tax avoidance behavior.

Corporations often attempt to influence the political process to obtain economic benefits. Lobbying and contributions to political action committees (PACs) are two common ways firms develop political connections. Consistent with political connections providing valuable benefits, prior research finds that firms with greater lobbying expenditures and PAC contributions exhibit better accounting and market performance (e.g., Borisov et al. 2016; Hill et al. 2013; Chen et al. 2010), are more likely to receive government funding (Duchin and Sosyura 2012), and exhibit higher levels of tax avoidance (Kim and Zhang 2016; Brown et al. 2015; Alexander et al. 2009). However, lobbying and PAC contributions are considered complimentary activities in the sense that PACs only provide access to legislators to make firms more eligible for lobbying (Kim 2008). Furthermore, both activities are useful only for specific issues (Kim 2008) with specific politicians (Vidal et al. 2012).

An alternative mechanism to gain political influence is to appoint directors with political experience to the board. Politically connected directors potentially create broad political influence for the firm via their "connections, access, and clout" (Luechinger and

Moser 2014). Indeed, Pfeffer's (1972) theory of resource dependence suggests that firms are dependent on linkages with the government, such as those provided by politically connected directors. Moreover, empirical evidence suggests that firms with political insiders on the board receive preferential access to government contracts (Goldman et al. 2013), are more likely to receive government funding (Duchin and Sosyura 2012), and experience better market performance (Agrawal and Knoeber 2001; Goldman et al. 2009) than firms without politically connected directors.

Kim and Zhang (2016) examine the association between political connections and tax avoidance. The authors find that the presence of politically connected directors is associated with higher levels of tax avoidance. This result suggests that there are returns to appointing a politically connected individual to the board of directors. Although Kim and Zhang (2016) focus on the existence of political connections, it is likely that the influence of a politically connected director depends on the characteristics of the politically connected director. I extend Kim and Zhang (2016) and explore instances where the influence of politically connected directors on tax avoidance is likely to vary.

First, I examine whether high-profile political directors influence the level of a firm's tax avoidance.[1] Political directors who held high-profile positions in government, including president, vice-president, cabinet secretary, senator, congressman, or governor, have stronger government connections relative to other politically connected directors. Consequently, high-profile directors are more likely to advocate successfully for firm' tax benefits, suggesting that the presence of a high-profile director is associated with higher levels of tax avoidance. However, high-profile directors are likely also more sensitive to actions that would harm their individual reputations. In addition, because they are more visible, these directors are

[1] I use "politically connected director" and "political director" interchangeably throughout this paper.

more likely to be subject to additional public scrutiny and greater litigation risk associated with corporate tax avoidance. Thus, firms with high-profile politically connected directors potentially exhibit lower levels of tax avoidance, compared to firms without high-profile directors. Consequently, it is not clear whether firms with high-profile directors will exhibit higher or lower levels of tax avoidance relative to firms with low-profile political directors.

Second, I examine whether the politically connected director's affiliation to the political party in power impacts firms' tax avoidance. Politically connected directors likely have more access to, and better relationships with, politicians when they belong to the same political party. Therefore, I expect politically connected directors have a greater influence on tax avoidance when they are a member of the political party in power in a given year. Finally, I examine whether the length of a director's political service influences the association between politically connected directors and firms' level of tax avoidance. Political directors with longer government service likely have more expertise, knowledge, social networks, and influence to affect tax policy outcomes for the firm. Longer government tenure may facilitate stronger social networks with current government officials and access to inside information regarding tax law and enforcement changes. Thus, it is reasonable to expect that the association between politically connected directors and tax avoidance is stronger for politically connected directors with longer public service.

To test my hypotheses, I use a sample that is the intersection of the Compustat and BoardEx databases. I hand-collect background information on corporate directors to classify politically connected directors. Hanlon and Heitzman (2010) note that tax avoidance is a continuum that ranges from clearly legal transactions, such as investments in municipal bonds, to transactions of questionable legality, such as tax shelters. Because I am interested

in the influence of the characteristics of politically connected directors across the entire tax avoidance continuum, I use a wide variety of tax avoidance proxies. Specifically, I proxy for less risky tax avoidance using the effective tax rate and the cash effective tax rate. To proxy for aggressive tax avoidance strategies, I estimate discretionary permanent book-tax differences, tax shelter prediction scores, and industry- and size-adjusted effective tax rate.

I find evidence of a relation between firms with high-profile directors and aggressive tax avoidance relative to firms with low-profile directors. Also, I find an association between a political director's party affiliation to the political party in power and aggressive tax avoidance, but the level of tax aggressiveness varies with affiliation to the branch of government in power. Lastly, I find that the length of a political director's government tenure is associated with aggressive tax strategies. I also explore additional cross-sectional analysis and sensitivity tests to complement the main analysis.

My study contributes to two distinct streams of literature. First, I contribute to the literature on the determinants of tax avoidance. While there is a long line of research that documents substantial variation in firms' ability to avoid income taxes (Dyreng et al. 2008), few examine the characteristics of board members that influence firms' tax outcomes (e.g. Armstrong et al. 2015; Robinson et al. 2012). I contribute to our understanding of the variation in tax avoidance across firms by providing evidence on the characteristics of politically connected directors associated with firms' tax avoidance. Second, I contribute to research on the outcomes of political connections. Recent research reports that corporate political activity, including lobbying, contributing to PACs, or having a former government official on the board, is associated with higher levels of tax avoidance (e.g., Kim and Zhang 2016; Brown et al. 2015; Alexander et al. 2009). I extend this line of research by providing

evidence on the mechanisms by which politically connected directors influence tax avoidance. My findings suggest that there are returns to political connections, but there is variation in the extent of the benefit that some politically connected directors provide.

The rest of the paper proceeds as follows. In the next section I review related literature and develop hypothesis. Sections III and IV describe the research design, and sample selection and results, respectively. Section V provides additional analysis, and Section VI concludes.

II. RELATED LITERATURE AND HYPOTHESIS DEVELOPMENT

PRIOR LITERATURE ON TAX AVOIDANCE

Recent research suggests that firms are highly effective at reducing their tax payments. For example, Dyreng et al. (2008) find that approximately one-fourth of firms sustain cash effective tax rates below 20 percent over extended periods, as long as 10 years. Several studies examine the relation between firm-level characteristics and tax avoidance, yet limited empirical studies exist about cross-sectional determinants of corporate tax avoidance. Shackelford and Shevlin (2001) and Hanlon and Heitzman (2010) both call for more studies that explain cross-sectional differences in corporate tax avoidance. Recent studies examine the role individual characteristics of boards of directors play in firms' tax avoidance activities. I discuss both below.[2]

Firm-level characteristics such as the scale of international operations (Rego 2003), tax shelter participation (Wilson 2009; Lisowsky 2010), and ownership structure (McGuire, Wang, and Wilson 2014; Chen, Parsely, and Yang 2010)[3] have been examined as determinants of tax avoidance. Robinson, Sikes, and Weaver (2010) examine the association between effective tax rates (ETRs) and a firm's decision to evaluate the performance of tax departments as profit centers (i.e., a "contributor to its bottom line") or cost centers. They find that when the tax department is considered a profit center, GAAP ETRs are lower, but cash ETRs are not.

[2] Hanlon and Heitzman (2010) provide a comprehensive review of the tax avoidance literature.

[3] Chen et al. (2010) examine whether family firms avoid more taxes, while McGuire et al. (2014) examine whether agency conflicts, inherent in dual class ownership structure, are associated with the level of firms' tax avoidance, and provide evidence that agency costs play a role in explaining cross-sectional variation in tax avoidance.

Other studies examine the effects of manager incentives on tax avoidance. For example, Armstrong, Blouin, and Larcker (2012) examine tax director incentives, and find that tax directors are provided with incentives to reduce the tax expense reported on the financial statements, but not cash taxes paid. Gallemore, Maydew, and Thornock (2014) examine reputational effects of tax sheltering on firms' CEO and CFO.[4] They find that firms' managers do not face labor market consequences following the revelation of tax shelter participation. On the other hand, Graham, Hanlon, Shevlin, and Shroff (2014) use survey data of top executives and examine whether reputational concerns influence firms' tax planning strategies. The authors find evidence of an association between reputation concerns and higher cash ETRs, and lower likelihood of tax shelter participation. The inconsistencies between both studies suggest uncertainty about whether reputation concern is a factor in firms' tax strategy decisions.[5]

THE EFFECTS OF BOARDS OF DIRECTORS ON FIRMS' TAX AVOIDANCE ACTIVITIES

Recent research examines characteristics of individual board members and tax avoidance. For example, Armstrong, Blouin, Jagolinzer, and Larcker (2015), and Robinson, Xue, and Zhang (2012) find that boards with financial experts influence firms' tax avoidance activities. However, the level of tax avoidance firms undertake varies with the financial sophistication of the board (Armstrong et al. 2015). Specifically, more financially sophisticated boards moderate relatively extreme levels of tax avoidance. In addition, Brown (2011) examines the use of corporate-owned life insurance (COLI) shelters, a particularly

[4] Gallemore et al. (2014) define reputation "as a general perception of the firm by all interested stakeholders."
[5] The authors attempt to reconcile their results to those of other studies that examine reputational consequences for firms that engage in tax shelters. They state that "whether reputation concerns constrain tax planning is not measurable in archival tests of tax shelter firms because strategies that firms do not employ because of reputational concerns are not observed."

aggressive tax strategy, and finds that network ties via board interlocks increase the likelihood that a firm adopts the COLI shelter. This result suggests that board members with ties to other boards jointly impact those firms' tax avoidance behaviors.

CORPORATE POLITICAL CONNECTIONS

The role of government in business is broad in scope. The federal government regulates businesses, buys business' products and services, and promotes, subsidizes, and finances business (Steiner and Steiner 2012). Mills, Nutter, and Schwab (2013) provide evidence that suggests the government uses its contracting power to elicit certain business behaviors and actions. Specifically, their findings suggest that politically-sensitive firms (i.e., firms dependent on government contract revenue) exhibit lower levels of tax avoidance.

Corporations often attempt to influence the political process to obtain economic benefits. Lobbying and contributing to political action committees (PACs) are two common mechanisms firms use to gain political influence. Prior studies show, in general, that firms are rewarded financially and receive preferential treatment from the government from engaging in these political activities (Kim 2008; Chen, Parsley, and Yang 2010; Duchin and Sosyura 2012; Hill, Kelly, Lockhart, and Ness 2013; Borisov, Goldman, and Gupta 2016)[6]. Political influence is also associated with tax avoidance. Recent studies find that firms that lobby and contribute to PACs have lower ETRs (Kim and Zhang 2016; Brown, Drake, and Wellman 2015; Alexander, Mazza, and Scholz 2009; Richter, Samphantharak, and Timmons 2009). The evidence jointly suggests that firms with political connections via lobbying and PAC activities achieve favorable economic outcomes.

Although lobbying and PACs provide firms with similar outcomes, they are limited in their source of political influence. These mechanisms of political influence are considered

[6] Kim (2008) finds this association only with firms that lobby, and not those that contribute to PACs.

complementary activities in the sense that PACs only buy access to legislators' doors to make firms more eligible for lobbying (Kim 2008). Yet, politicians have limited time to meet with lobbyists (Kim 2008), and lobbyists' access to politicians is limited to specific issues with specific politicians. Indeed, lobbyists who were former staff members of U.S. senators experience a significant drop in lobbying revenues when the senator leaves office (Vidal, Draca, and Fons-Rosen 2012).

Moreover, foreign companies primarily seek the same top lobbying firms to influence U.S. policy that are employed by their domestic U.S. competitors because they have a direct stake in the U.S.' business law and tax policy.[7] Furthermore, lobbying has been subject to federal ethics rules since 1989 following passage of the Ethics Reform Act, and more recently with the Honest Leadership and Open Government Act of 2007 (HLOGA).[8] HLOGA reins in lobbying by members of Congress, their top staffers, and other key government officials, and limits their ability to "cash in" immediately on their insider knowledge by lobbying their former colleagues.[9] Consequently, lobbyists' ability to provide firms with relatively consistent political outcomes is limited.

[7] Foreign corporations primarily lobby for international trade, defense, and taxation and the Internal Revenue Code. For example, U.K. based GlaxoSmithKline, the second highest spending foreign company on lobbying activities, consistently lobbies on Medicare and Medicaid reform issues. In the defense industry, sixteen foreign companies that paid U.S. lobbyists to lobby the Department of Defense (between 1998 and mid-2004) received more than $16.4 billion in Pentagon contracts, "Foreign companies pay to influence U.S. policy," *Center for Public Integrity*, May 20, 2005.

[8] The HLOGA was signed into law by President Bush in 2007 in response to lobbying scandals that landed two former lawmakers in prison, "Bush signs lobby-ethics bill" *The Washington Times* (2007); "All cooled off: as Congress convenes, former colleagues will soon be calling from K Street" opensecrets.org (2015).

[9] Former government officials are prohibited from lobbying for a specific time period after leaving political office. Former senators and high-ranking executive branch officials must wait two years before lobbying Congress and former House members must wait one year. The law also includes increased civil and criminal penalties for failure to comply.

An alternative mechanism for firms to develop political connections is to appoint former government officials to their boards of directors.[10] Unlike lobbying, a board directorship allows former government officials an opportunity to influence sitting law-makers without registering as lobbyists. Further, there is no obligation to follow strict lobbying disclosure requirements or mandated "cooling-off" periods. Political directors can "cash out" immediately on their political connections and credentials, and enjoy high paying jobs after their political careers are over (Palmer and Schneer 2016).[11, 12]

Former government officials' post-political experience, connections, and influence facilitate significant contributions to the board to pre-empt or promote policy outcomes for the firm, which may arise using both direct and indirect channels (Goldman et al. 2009). For example, political directors may influence allocation of government contracts (Goldman, Rocholl, and So 2013), and monitor changes in the regulatory environment.[13] Moreover, they provide direct access to political decision-makers that enables influence over political decisions,[14] and enhance firms' public profile and legitimacy.[15] Also, political directors may

[10] Boards are a common destination for former politicians. Palmer and Schneer (2016) examine board directorships for former senators and governors and report that approximately 50% of former politicians join boards compared to only 25% who go on to work as lobbyists.

[11] Political directors earn an average annual salary that exceeds $250,000 for part-time work, for approximately only 250 – 300 hours of work annually (about 15% of the hours worked by a full-time employee in a 40 hour per week job).

[12] Under federal conflict of interest law, *18 U.S.Code Section 207*, senior federal employees in the executive and legislative branches are subject to "cooling off" periods. During the period, former senior officials are prohibited from communications with intent to influence persons in their former departments or agencies. Senators and senior officials in the executive branch are barred within two years of leaving office, and members of the House of Representatives are barred for one year after leaving office, *www.justice.gov.* Nonetheless, I contend that the rules set forth in this law are less restrictive than existing laws for lobbying activities. Moreover, the conflict of interest law does not prohibit a former government official from serving as a member of the board of directors upon termination from political employment.

[13] "Without monitoring [by political directors], businesses may be unaware of potential legislation which may affect their operations" (Bierman, Hillman, and Zardkoohi 1999).

[14] Time Warner Cable stated in its 2014 annual report that "Net neutrality regulation or legislation…could result in increased taxes and fees imposed on [the company]." The company announced the appointment of former senator John Sununu to the board in its 2012 prospectus, which states, in part, that "Senator Sununu has significant legislative, regulatory and financial experience. The Company's business is subject to extensive regulation, and [he] provides legislative and regulatory insight."

influence legislators to impose tariffs on competitors, and promote a product or business and discourage others through the use of tax incentives. Consistent with this line of thought, Kim and Zhang (2016) examine whether the presence of politically connected directors is associated with corporate tax avoidance. They find that politically connected firms are more tax aggressive than non-connected firms, suggesting that politically connected directors provide better information regarding tax law and enforcement changes for firms to engage in aggressive tax planning strategies.

In summary, the evidence suggests that appointing a politically connected individual to the board is a more effective operational and financial strategy for firms to obtain a variety of potentially consistent economic benefits. Recent research finds that the characteristics of individual board members, such as financial expertise, (Armstrong et al. 2015; Robinson et al. 2012) and political connections (Kim and Zhang 2016) are associated with firms' tax avoidance activities. I extend this line of research by providing evidence on whether individual attributes of politically connected directors influence firms' tax avoidance activities.

HYPOTHESIS DEVELOPMENT

High-Profile Directors

High-profile political directors served in positions of great influence while in government, including president, vice-president, cabinet secretary, senator, congressman, or governor, and potentially have stronger government connections relative to other directors. Consequently, high-profile directors are more likely to advocate successfully for firms' tax

[15] Corporations sometimes put high-profile former politicians on the board because it increases "[the firm's] visibility and exposure through the fame, reputation, and status associated with [them] on the board." *International Business Times*, "Apple and Al Gore: Why are celebrities put on corporate boards?" September 26, 2011. "Corporate governance experts say [high-profile directors] can be highly beneficial, raising a company's profile and even its stock price" *Baltimore Sun* (2013).

benefits, suggesting that the presence of a high-profile director is associated with higher levels of tax avoidance. Indeed, recent evidence suggests that top executives do not face reputational costs from the revelation of the firm participating in tax sheltering (Gallemore et al. 2014). The authors do not examine why this is the case.[16] One possibility is the presence of high-profile directors on the board. High-profile directors may exploit their political network connections and participate in higher levels of tax avoidance without threat of reputational harm to themselves or firm executives relative to directors who did not serve in high-profile political positions (i.e., low-profile directors).

On the other hand, high-profile directors are likely more sensitive to actions that would harm their individual reputations. These directors have more name recognition than low-profile directors, and are potentially subject to additional public scrutiny and litigation risk associated with corporate tax avoidance. Moreover, high-profile directors are more visible to the public on both a national and international stage, as they interacted with a broad range of constituents and interests while in government, compared to other politicians who served in less visible positions.

Also, anecdotal evidence suggests that high-profile political directors considering re-election or re-appointment to public office likely face higher reputational costs associated with their service in a board directorship. For example, Dick Chaney, before his tenure as a U.S. vice-president, served as CEO of Halliburton. During his tenure at Halliburton, Mr. Chaney was publicly criticized by members of Congress and the media for engaging in

[16] Gallemore et al. (2014) use a one-year window for a matched control sample to examine turnover of CEO and CFO positions for firms that revealed participating in tax sheltering. They find no evidence that revealed tax shelter firms experience significantly higher likelihood of executive turnover. However, the authors state that the effect may indeed exist, but the tests used may not be empirically sufficient to find it. Nonetheless, the authors suggest one possibility why executives do not face turnover is that the legal proceedings for a tax shelter extend beyond the one-year window they examine. In subsequent tests, they use a three-year window and find similar results, i.e. executives do not experience labor market consequences from the revelation of the firm engaging in tax sheltering.

aggressive tax strategies, including increasing the number of subsidiaries located in offshore tax havens from 9 to 44, and relocating company headquarters from Texas to Dubai, a no-tax jurisdiction, to avoid paying the company's "fair share" of U.S. tax.[17, 18] Accordingly, it is reasonable to expect that because high-profile directors potentially sustain higher reputational risk, they should be more inclined to protect their reputation, and discourage tax avoidance when the costs exceed the benefits. Thus, firms with high-profile directors potentially exhibit lower levels of tax avoidance, compared to firms without high-profile directors.

Given the discussion above, it is not clear whether firms with high-profile directors exhibit higher or lower levels of tax avoidance relative to firms with low-profile directors. Therefore, I do not make a directional hypothesis. Stated formally:

H1: There is no difference between the level of tax avoidance for firms with a high-profile director and firms with a low-profile director.

Political Party Affiliation

Politically connected directors who belong to the political party in power likely have more access to, and better relationships with, party affiliate politicians to significantly influence legislation for the firm's benefit. Consistent with this notion, Goldman et al. (2009) show that board members with connections to the political party in power receive greater stock returns, which suggests that a political director's political party affiliation influences firms' economic outcomes.[19] Therefore, it is reasonable to expect that firms whose politically

[17] http://www.corpwatch.org.

[18] Also, Jeb Bush, a former governor of the state of Florida, served on several boards of firms that collapsed in fraud and bankruptcy, including InnoVida Holdings in which Bush was mandated to repay almost 60% ($270,000) of his board compensation. A businessman who contracted with the company stated that "…if you are running for the president of the United States of America, you need to show that you have [good] judgement." *Business Insider*, "Jeb Bush's corporate past is being shredded by experts", May 28, 2015.

[19] Goldman et al. (2009) examine this association using industry-adjusted returns around the 2000 presidential election. They find that firms that contribute to a political party do not perform differently from their industry,

connected director is affiliated with the political party in power exhibit higher levels of tax avoidance compared to firms whose political director is not affiliated with the political party in power. Stated formally:

> H2: The association between political connections and tax avoidance is stronger for firms whose politically connected directors are affiliated with the political party in power compared to firms whose politically connected directors are not affiliated with the political party in power.

Political Experience

The depth of a political director's human and social capital depends on the quality of the "director's expertise, knowledge, skills, and social networks…one way to gauge the depth of a director's human and social capital is through tenure in government service" (Cannella et al. 2008). However, research on the effect of a political director's tenure on firm outcomes is limited. Nonetheless, previous work may provide some guidance and establishes an association between the length of an employee's experience and selection, retention, and promotion decisions (e.g., McEnrue 1988; Mills 1956). An assumption of this work is that those with the greatest experience and most influential network of relationships will be more valuable to their employing firms. Therefore, it is reasonable to assume that political directors with longer government service likely have stronger social networks with current government officials and access to better information regarding tax law and enforcement changes. Indeed, "as tenure in government increases, so will the depth of the [political director's] human and social capital," including expertise, knowledge, skill, social networks,

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but firms with a Republican (Democrat) political director on the board outperform (underperform) their industry.

resources, and influence (Cannella et al. 2008). Thus, I expect that political directors with longer government tenure are associated with higher levels of tax avoidance. Stated formally:

H3: The association between political connections and tax avoidance is stronger for firms whose politically connected directors have lengthy government tenure.

III. RESEARCH DESIGN

MEASURES OF POLITICAL CONNECTEDNESS

I follow Goldman et al. (2009) and define a board member as being politically connected if at any time the individual held any of the following positions: president of the United States, presidential (vice-presidential) candidate, senator, member of the House of Representatives, (assistant) secretary, deputy secretary, deputy assistant secretary, undersecretary, associate director, governor, director (CIA, FEMA), deputy director (CIA, OMB), commissioner (IRS, NRC, SSA, CRC, FDA, SEC), representative of the United Nations, ambassador, mayor, staff (White House, president, presidential campaign), chairman of the Party Caucus, chairman or staff of the presidential election campaign, and chairman or member of the president's committee/council.[20, 21] BoardEx provides a brief description of each board member's career history. I review each board member's career background and retain directors who are politically connected. I create an indicator variable (*PCD*) that equals one if a firm-year observation has at least one board member who is politically connected, and zero otherwise.

CHARACTERISTICS OF POLITICAL DIRECTORS

To examine the association between politically connected directors and tax avoidance, I identify several cross-sectional differences among political directors.

[20] Kim and Zhang (2016) also use Goldman et al.'s (2009) classification of political directors.
[21] I follow Kim and Zhang (2016) and exclude local and lower-ranked politicians. While the authors do not describe those positions, I exclude politicians who held positions in cities, municipalities and towns, former mayors, and administrative staff because politicians who held these positions are likely less influential.

High-Profile Directors

Politically connected directors once held elected and/or appointed positions during their former political careers. However, variation in political profile likely exists within the pool of politically connected directors. High-profile political directors are those who are highly visible to the public, interact with a broad range of constituents, and have more name recognition than the average board member. I classify a director as high-profile if the individual held any of the following government positions during the sample period: president, vice-president, cabinet secretary, senator, congressman, or governor. I create an indicator variable, *HIGH_PROFILE*, that is equal to one if a politically connected director served as president, vice-president, cabinet secretary, senator, congressman, or governor, and zero otherwise. *HIGH_PROFILE* captures the average difference between firm-years with a high-profile director and firm-years without a high-profile director. A more rigorous empirical test controls for firm-years without a high-profile director. Accordingly, I construct variable, *LOW_PROFILE*, which is equal to one for firm-years without a high-profile political director, and zero otherwise. Then, I conduct a joint test of significance of the coefficients on *HIGH-PROFILE* and *LOW-PROFILE*.

An underlying assumption of the analysis discussed above is that directors who serve in any high-profile position share similar reputational risk or network connections to the government. Therefore, I perform additional cross-sectional analyses to further investigate the effect of high-profile political directors on tax avoidance. I examine whether political directors who served in more than one high-profile position influence firms' tax avoidance activities. *HIGHPROFILE_MORE* is equal to one if a politically connected director served in more than one high-profile position, and zero otherwise. I also examine each high-profile

position and create indicator variables for each position.[22] Specifically, *CAB_SEC* is equal to one if a politically connected director served as a member of the president's cabinet, and zero otherwise. *SENATOR* is equal to one if a political director served as a U.S. senator, and zero otherwise. *REP* is equal to one if a politically connected director served as a member of the U.S. House of Representatives, and zero otherwise. Lastly, *GOV* takes a value of one if a politically connected director served as a state governor, and zero otherwise.

Political Party Affiliation

My second hypothesis investigates whether alignment between politically connected directors' party affiliation and the overall political environment matter for tax avoidance. Specifically, a shift from Republican (Democrat) to Democrat (Republican) leadership likely diminishes a political director's channels of communication, and, consequently, her political influence to impact tax policy in the firm's favor if the political director's party affiliate is Republican (Democrat).

Because it is possible for both political parties to each control a branch of government simultaneously, I consider three different scenarios.[23] I create three indicator variables to examine this relationship. First, *AFFILIATE_1* is equal to one if the politically connected director's last party affiliation before leaving political office controls either the House, Senate, or White House in firm-year *t*, and zero otherwise. Second, *AFFILIATE_2* is equal to one if the politically connected director's last party affiliation before leaving political office controls both the House and Senate in firm-year *t*, and zero otherwise. Finally, *AFFILIATE_3* is equal to one if the politically connected director's last party affiliation before leaving

[22] I do not examine president or vice-president positions because the sample size is relatively small, which provides little variation for empirical analysis. Specifically, the descriptive statistics show that combined, both positions account for only 0.04% of total firm-years and 0.2% of politically connected firm years.
[23] I define "branch of government" to include the Senate, House, or White House.

political office controls the House, Senate, and White House in firm-year *t*, and zero otherwise.

I also construct additional variables, which capture firm-years not classified in each of the three scenarios. Specifically, *NO_AFFILIATE_1* is equal to one for firm-years with no party alignment to the political party that controls the house, senate, or white house, and zero otherwise. *NO_AFFILIATE_2* is equal to one for firm-years with no party alignment to the political party that controls the house and senate, and zero otherwise. Lastly, *NO_AFFILIATE_3* is equal to one for firm-years with no party alignment to the political party that controls all three branches in firm-year *t*, and zero otherwise.

I perform additional cross-sectional analysis to investigate other instances where a political director's party affiliation to the branch of government in power likely influences firms' tax avoidance. For example, it is possible that a political director's party affiliation to a particular branch of government in power has a stronger effect on firm's tax avoidance activities. So, I examine whether a political director's affiliation with the political party that controls Congress (*AFFILIATE_CONGRESS*) or the white house (*AFFILIATE_WHOUSE*) has a stronger effect on tax avoidance.[24] *AFFILIATE_CONGRESS* is equal to one if a politically connected director's political party affiliate controls the senate or the house, and zero otherwise. *AFFILIATE_WHOUSE* is equal to one if a politically connected director's political party affiliate controls the white house, and zero otherwise.

[24] The same political party controlled both the senate and house for any given year during the sample period. Specifically, the Republican Party controlled both branches of government from 1999 to 2007 and 2011 to 2014. The Democrat Party controlled both branches from 2008 to 2010. Thus, I group firm-years for both branches (*AFFILIATE_CONGRESS*).

Political Experience

Cannella et al. (2008) state that one way to measure the "depth of [political directors'] human and social capital is through tenure in government service." Accordingly, I use the number of years a political director spent in government service (*LN_GOVT_TENURE)* to measure the director's political experience. Specifically, *LN_GOVT_TENURE* is the natural log of the sum of years a politically connected director served in government.

MEASURES OF TAX AVOIDANCE

Prior studies investigate tax avoidance as a continuum that ranges from less aggressive actions, including municipal bond investments (Hanlon and Heitzman 2010), to more aggressive measures, including tax shelters (Lisowsky 2010). Kim and Zhang (2016) report that firms with politically connected directors are more tax aggressive, and have lower effective tax rates. I follow their study and use five existing measures of tax avoidance: discretionary permanent book-tax differences, tax shelter prediction scores, industry- and size-matched GAAP effective tax rate, GAAP effective tax rate, and cash effective tax rate. [25]

Discretionary permanent book-tax differences (*DTAX*) (Frank et al. 2009) captures permanent differences, which reduce cash taxes paid without decreasing financial statement income. *DTAX* is designed to capture more aggressive tax avoidance activities. Indeed, Frank et al. (2009) find that *DTAX* is associated with the likelihood that a firm is currently engaged in a tax shelter. Corporate tax shelters have become important corporate instruments for reducing tax burden. Therefore, I use tax shelter prediction scores (*SHELTER*) (Wilson 2009) as another measure of tax aggressiveness. The third tax aggressiveness measure, industry- and size-matched GAAP effective tax rate (*TA_ETR*), captures cross-sectional variation in

[25] Kim and Zhang (2016) do not use less aggressive measures of tax avoidance, i.e., GAAP ETR or cash ETR. They use measures of more aggressive tax avoidance, i.e., discretionary permanent book-tax differences, tax shelter prediction score, and industry- and size-matched GAAP effective tax rate.

total tax planning (including timing and permanent differences), and benchmarks a firm's tax aggressiveness relative to that of similar-sized firms in the same industry (Balakrishnan et al. 2012).[26] In the case of each proxy, larger values represent higher levels of tax aggressiveness.

My first three proxies for tax avoidance capture aggressive tax avoidance. However, many benefits available under the tax law are not aggressive. For example, the research and development tax credit is not generally considered aggressive. To capture these less aggressive activities, I estimate the GAAP effective tax rate, (*ETR*), and the cash effective tax rate, (*CETR*). Following Dyreng et al. (2008), I define *ETR* as total tax expense divided by pre-tax book income less special items. I define *CETR* as total cash taxes paid divided by pre-tax book income less special items (Dyreng et al. 2008). For each proxy, lower values indicate higher levels of tax avoidance.

MULTIVARIATE ANALYSIS

Sample Selection Bias and Endogeneity

The decision to appoint a politically connected individual to the board is a firm choice. To address potential self-selection bias in my sample, I investigate the determinants of this choice variable and correct for potential endogeneity and estimate a two-stage treatment effects model (Heckman 1979). I first estimate the following reduced probit regression model using measures Kim and Zhang (2016) suggest impact the choice to engage in the political landscape:[27]

$$Pr(PCD) = \alpha + \beta X_{i,t} + \gamma \%POL\_CONNECT_{i,t} + \delta INDUSTRY_i + \theta YEAR_t + \varepsilon \quad (1)$$

[26] Please see Appendix I for detailed descriptions of *DTAX*, *SHELTER*, and *TA_ETR*.

[27] Kim and Zhang (2016) use a battery of control variables. I estimate their model in reduced-form and include determinants of tax avoidance widely accepted in the literature. However, I also replicate the authors' findings over my extended sample period 1999-2014. The results are provided in Table 7, and the additional variables Kim and Zhang (2016) use are described in Appendix II.

where all variables are defined in Appendix I. The dependent variable (*PCD*) is an indicator variable equal to one if year *t* has at least one board member who is politically connected (as previously defined), and zero if year *t* does not have a board member who is politically connected.[28] Vector $X_{i,t}$ represents a set of control variables, which are discussed below. I include these variables because the same factors that influence tax avoidance also likely influence the decision to appoint a politically connected director.

Lennox, Francis, and Wang (2012) note that the Heckman (1979) model requires that the selection (i.e., first-stage model) includes at least one variable that is correlated with the decision to appoint a politically connected director, but is not correlated with a firm's tax avoidance activities. The challenge is to identify firm characteristics that are significantly associated with the decision to appoint a politically connected director, but not tax avoidance. To address this, I follow Kim and Zhang (2016) and include the percentage of politically connected firms in a firm's industry group (*%POL_CONNECT*) as an additional variable in the selection model because *%POL_CONNECT* likely influences the firm's decision to appoint a politically connected director, but does not necessarily influence the level of a firm's tax avoidance. I use the coefficients from Equation (1) to construct an inverse Mills ratio (*INVMILLS*), which I include as a control variable in Equation (2) (Heckman 1979). Standard errors are clustered by firm (Peterson 2009).

Multivariate Models[29]

Main Effect

To examine whether the presence of a politically connected director is associated with a firm's tax avoidance activities, I estimate the following second-stage model:

[28] Kim and Zhang (2016) use three political connection indicators: political director, PAC contributions, and lobbying expenditures. Because I am interested in the cross-sectional variation in tax avoidance for political directors, I replicate their study only for political directors.

[29] Standard errors are clustered by firm and year for all model specifications (Peterson 2009).

$$TAXAVOID_{i,t} = \beta_0 + \beta_1 PCD_i + \gamma CONTROLS_{i,t} + \varphi INVMILLS_{i,t} + \delta INDUSTRY_i + \theta YEAR_t + \varepsilon_{i,t} \quad (2)$$

where all variables are defined in Appendix I. The dependent variable (*TAXAVOID*) represents one of my five measures of tax avoidance, i.e., *DTAX*, *SHELTER*, *TA_ETR*, *ETR*, and *CETR*. My variable of interest is *PCD*. A positive (negative) coefficient on *DTAX*, *SHELTER*, *TA_ETR*, (*ETR*, and *CETR*) is consistent with the notion that the presence of political directors on a board is associated with higher levels of tax avoidance. Likewise, a negative (positive) coefficient on *DTAX*, *SHELTER*, *TA_ETR*, (*ETR*, and *CETR*) suggests that the presence of political directors on a board is associated with lower levels of tax avoidance.

Characteristics of Political Directors

High-Profile Directors

To examine the association between tax avoidance and high-profile directors, I estimate the following second-stage regression model:

$$TAXAVOID_{i,t} = \alpha_0 + \beta_1 HIGH\_PROFILE_{i,t} + \beta_2 LOW\_PROFILE_{i,t} + \gamma CONTROLS_{i,t} + \varphi INVMILLS_{i,t} + \delta INDUSTRY_i + \theta YEAR_t + \varepsilon_{i,t} \quad (3)$$

where all variables are defined in Appendix I. The dependent variable (*TAXAVOID*) represents one of my five measures of tax avoidance.

To test my first hypothesis, I analyze the coefficient on *HIGH_PROFILE*. A negative coefficient when *DTAX*, *SHELTER*, and *TA_ETR* are the dependent variables, and a positive coefficient when *ETR* or *CETR* serves as the dependent variable supports the position that high-profile directors are associated with lower levels of tax avoidance. In contrast, a positive coefficient when *DTAX*, *SHELTER*, and *TA_ETR* are the dependent variables, and a negative coefficient when *ETR* or *CETR* is the dependent variable suggest that high-profile directors

are associated with higher levels of tax avoidance. I then test whether the coefficients on *HIGH_PROFILE* and *LOW_PROFILE* are statistically different. The null hypothesis predicts no difference between both coefficients, i.e., ($\beta_1 = \beta_2$).

Political Party Affiliation

I examine the association between tax avoidance and politically connected directors' political party affiliation and estimate the following second-stage regression model:

$$TAXAVOID_{i,t} = \alpha_0 + \beta_1 AFFILIATE_{i,t} + \beta_2 NO\_AFFILIATE_{i,t} + \gamma CONTROLS_{i,t} + \varphi INVMILLS_{i,t} + \delta INDUSTRY_i + \theta YEAR_t + \varepsilon_{i,t} \quad (4)$$

where all variables are defined in Appendix I. To test my second hypothesis, I analyze the coefficient on *AFFILIATE*. As previously discussed, I consider three different scenarios, where *AFFILIATE* and *NO_AFFILIATE* represent one of three variables described in Appendix I. Therefore, Equation (4) is estimated separately for each of the three classifications. Specifically, the first regression includes *AFFILIATE_1* and *NO_AFFILIATE_1*, the second regression includes *AFFILIATE_2* and *NO_AFFILIATE_2*, and the third regression includes *AFFILIATE_3* and *NO_AFFILIATE_3*.

A positive coefficient when *DTAX*, *SHELTER*, and *TA_ETR* are the dependent variables, and a negative coefficient when *ETR* or *CETR* is the dependent variable supports the notion that politically connected directors affiliated with the party in power are associated with higher levels of tax avoidance. On the other hand, a negative coefficient when *DTAX*, *SHELTER*, and *TA_ETR* are the dependent variables, and a positive coefficient when *ETR* or *CETR* is the dependent variable suggest that politically connected directors affiliated with the party in power are associated with lower levels of tax avoidance. I then test my hypothesis, i.e., ($\beta_1 \neq \beta_2$).

Political Experience

For my final analysis, I examine the association between tax avoidance and politically connected directors' government tenure, and estimate the following second-stage regression model:

$$TAXAVOID_{i,t} = \alpha_0 + \beta_1 PCD_{i,t} + \beta_2 GOVT\_TENURE_{i,t} + \beta_3 PCD \times GOVT\_TENURE + \gamma CONTROLS_{i,t} + \varphi INVMILLS_{i,t} + \delta INDUSTRY_i + \theta YEAR_t + \varepsilon_{i,t} \quad (5)$$

where all variables are defined in Appendix I. The coefficient of interest is β_3. A positive association between *PCD*GOVT_TENURE* and *DTAX*, *SHELTER*, and *TA_ETR*, and a negative association between *ETR* o *CETR* suggest that political directors with lengthy government service are associated with higher levels of tax avoidance. On the other hand, a negative association between *PCD*GOVT_TENURE* and *DTAX*, *SHELTER*, and *TA_ETR*, and a positive association between *PCD*GOVT_TENURE* and *ETR* or *CETR* suggest that political directors with lengthy government service are associated with lower levels of tax avoidance.

Control Variables

In addition to the variables of interest, I control for factors that prior research suggests are associated with tax avoidance to examine whether the characteristics of politically connected directors are incrementally associated with tax avoidance. I control for firm size (*SIZE*) because larger firms are more visible to the public and potentially face greater scrutiny by the government (Zimmerman 1983). Leverage (*LEV*) controls for the tax shield of debt (Armstrong et al. (2015). Rego (2003) finds that multinational firms with more foreign operations have lower worldwide GAAP effective tax rates. Therefore, I include foreign assets (*FASSETS*), which controls for differences in international planning

opportunities. In addition, the need for tax avoidance varies with firm profitability in both the current year and prior years (Chen et al. 2010). Consequently, I control for firm profitability (*ROA*), and net operating loss carryforwards (*NOL* and Δ*NOL*). I also control for firms' growth opportunities (*MTB*) because rapidly growing firms potentially invest more in tax-favored assets that generate timing differences in recognition of expenses (Chen et al. 2010).

More complex firms have greater opportunities to engage in additional tax planning (Rego 2003). Accordingly, I include Δ*GDWL*, *GEO_SEG*, and *CASH*, which measure firms' change in goodwill, the number of geographic segments, and the level of a firm's cash holdings, respectively, to control for firm complexity. I include equity income (*EQINC*), new investments (*NEW_INVEST*), property, plant, and equipment (*PP&E*), and intangible assets (*INTANG*) to control for differences in book and tax reporting that can affect the tax avoidance measures (Chen et al. 2010). I also control for industry competition (*HHI*) because Kubick et al. (2015) find that industry competitors influence firms' tax avoidance activities. Recent research suggests that institutional investors influence firms' tax avoidance activities (Bird and Karolyi 2016). Therefore, I control for institutional ownership (*PCT_IO*). As previously discussed, *INVMILLS* is derived from Equation (1) and controls for selection bias due to unobservable characteristics. Lastly, I control for industry (*INDUSTRY*) and year (*YEAR*) fixed effects.

IV. SAMPLE AND EMPIRICAL EVIDENCE

SAMPLE FIRMS

I obtain director-company data from the BoardEx database and accounting measures from the Compustat database. BoardEx collects and organizes data on corporate personnel, including their full employment history, and maintains a comprehensive record of directorships for firms traded on public exchanges in the United States.[30] I review each board member's career background to determine which directors are politically connected and then classify politically connected directors based upon their individual characteristics.[31] BoardEx does not provide all data required for the characteristics I examine. Specifically, political party affiliation of the politically connected director is not available in BoardEx. I obtain data for a politically connected director's political party affiliation from publicly available data sources, including www.senate.gov, www.house.gov, and www.bioguide.congress.gov. For those political directors who did not hold elected office, I obtain political party affiliation from biographies listed on their personal websites.[32]

I utilize a sample of firms from 1999-2014 as the beginning of this period reflects the initial data availability from the BoardEx database. By necessity, I eliminate firms missing director data in BoardEx. Following Kim and Zhang (2016), I delete observations missing Compustat data needed to calculate the tax and control variables. I also exclude firm-years with negative book values, and total assets less than one million dollars. Lastly, I eliminate

[30] http://corp.boardex.com.

[31] Prior studies that examine political directors obtain director data from different sources. BoardEx database is widely used in academic research, including the political connections literature (e.g., Palmer and Schneer 2016). Kim and Zhang (2016) use the EDGAR database and manually obtain the name and background of each board member from SEC filings, including DEF 14a, 10-K, and 8-K. However, I do not believe that differences in director data sources should affect inferences drawn from my study.

[32] Data on political party affiliation for appointed former government officials are limited because not all appointed government officials disclose their party affiliation.

firms that operate in financial services and utilities industries (SIC 4900 – 4999 and 6000 – 6999) because firms in these industries have different financial reporting considerations. I then merge the BoardEx data with the Compustat data to construct a comprehensive dataset of directors and annual firm accounting measures. Data restrictions described above yield a final sample of 37,146 total firm-year observations.

Because my primary analyses use firm-year level observations, some politically connected firms do not have a politically connected director in all years during the sample period. Accordingly, of the 37,146 total firm-years, 5,914 have a politically connected director in year *t*, i.e., politically-connected firm-years, and 31,232 firm-years do not have a politically connected director in year *t*, i.e., non-politically connected firm-years.

EMPIRICAL EVIDENCE

Descriptive Statistics

Table 1, Panel A provides the descriptive statistics for the sample of politically connected and non-politically firm-years. I find that the means and medians of my tax avoidance measures are generally consistent with prior literature (e.g. Armstrong et al. 2015; McGuire et al. 2014; Armstrong et al. 2012; Dyreng et al. 2008). Specifically, the mean (median) *TA_ETR* is -0.002 (-0.011). The mean (median) *ETR* is 0.295 (0.326), and the mean (median) *CETR* is 0.239 (0.226).[33] The means (medians) for *DTAX* and *SHELTER* are -0.005 (0.002), and 0.233 (0.134), respectively. Also, approximately sixteen percent of sample firm-years, on average, have a politically connected director (*PCD* = 0.159).[34] Politically connected directors represent, on average, approximately two percent of the board (mean

[33] I follow prior studies and winsorize *ETR* and *CETR* to be between zero and one.

[34] Kim and Zhang (2016) report that approximately 13.5% of their sample firm-years have a politically connected director. However, my sample period includes five additional years of data. Therefore, it is reasonable that my sample has a higher percentage of politically connected firm-years.

PCT_PCD = 0.020), and the average board size (*BOARD_TOTAL*) is approximately eight board members, which is consistent with prior research (e.g. Duellman et al. 2013).

Examining some of the political director characteristics show that high profile directors account for approximately six percent of total firm-years *(HIGH_PROFILE* = 0.062), about two percent of political directors held former government roles as a cabinet secretary or senator (*CAB_SEC* = 0.024; *SENATOR* = 0.020), approximately three percent are former House representatives (*REP* = 0.032), and about one percent are former governors (*GOV* = 0.012). On average, eight percent of political directors are affiliated with either branch of government in power (*AFFILIATE_1* = 0.084), and approximately one percent of politically connected directors have tax expertise (*TAX_EXPERT* = 0.012). Lastly, directors serve, on average, approximately 10 years on the board (*BOARD_TENURE* = 9.765).

Panel B provides industry distributions for politically connected and non-politically connected firm-years. Column (1) reports industry distributions for the full sample of firm-years, and Column (2) reports industry distributions for politically connected firm-years. Column (3) reports the distribution of politically connected firm-years relative to total firm-years in each respective industry, and Column (4) reports the proportion of politically connected firm-years in each respective industry to total politically connected firm-years. Column (3) shows that the aircraft, candy and soda, defense, nonmetallic mining, personal services, precious metals, printing and publishing, and shipbuilding and railroad equipment industries comprise approximately 35% to 50% of politically connected firm-years. Column (4) shows that within politically connected firm-years, the highest concentration is in the business services sector with approximately 16% of firm-years.

Collectively, industry distribution percentages in columns (3) and (4) seem to suggest an absence of industry concentration, which further suggests that the appointment of a politically connected individual to the board may not be industry-related.[35] Nonetheless, it is still important to consider empirically whether a concentration of politically connected directors exist in certain industries. Therefore, I control for industry-related effects in all regression models to mitigate misleading interpretations. The univariate correlations are presented in Panel C with Pearson (Spearman) coefficients reported above (below) the diagonal. I find a negative association between *PCD* and tax avoidance proxies *DTAX* and *CETR*, and a positive relationship between *PCD* and *SHELTER*, *TA_ETR*, and *ETR*.[36] Also, the correlation coefficients between *SHELTER* and all three director characteristics are positive and significant. Moreover, the correlations between the tax avoidance measures and control variables are consistent with prior research.

Univariate Results

Table 2 reports univariate analysis comparing politically connected to non-politically connected firm-years. Results show the means for all control variables are statistically different between both groups.[37] For example, the mean *ROA* for politically (non-politically) connected firm-years is 0.009 (-0.010) (p-value < 0.01). The mean *SIZE* for politically (non-politically) connected firm-years is 6.895 (5.650) (p-value < 0.01). Also, mean *MTB* for politically (non-politically) connected firm-years is 3.550 (3.398) (p-value < 0.05). Politically (non-politically) connected firm-years have cash on hand (*CASH*) equal to approximately

[35] This finding is consistent with Goldman et al. (2009), who show that companies with politically connected boards are relatively evenly distributed across the Fama-French industry groups.
[36] The Pearson coefficient between *ETR* and *PCD* is positive, while the Spearman coefficient is negative.
[37] Kim and Zhang (2016) also report statistically different means between connected firm-years and non-connected firm-years for most control variables in their study. The only exception is control variable *NOL*.

TABLE 1

Descriptive Statistics

Panel A: Descriptive Statistics for the Sample of Politically Connected and Non-Politically Connected Firm-Years

Variable[a,b]	*N*	Mean	Std.Dev.	25th Pctl	Median	75th Pctl
DTAX	36,182	-0.005	0.141	-0.025	0.002	0.030
SHELTER	33,764	0.233	0.237	0.046	0.134	0.376
TA_ETR	20,285	-0.002	0.141	-0.062	-0.011	0.050
ETR	24,255	0.295	0.166	0.218	0.326	0.377
CETR	23,563	0.239	0.197	0.083	0.226	0.337
ROA	37,146	-0.007	0.270	-0.052	0.052	0.125
NOL	37,146	0.483	0.500	0.000	0.000	1.000
%FASSETS	37,146	0.264	0.364	0.000	0.076	0.442
SIZE	37,146	5.848	2.047	4.383	5.858	7.223
LEV	37,146	0.143	0.166	0.000	0.082	0.246
MTB	37,146	3.422	4.409	1.288	2.115	3.681
PCT_IO	37,146	0.402	0.360	0.000	0.358	0.752
%POL_CONNECT	37,146	0.158	0.077	0.102	0.155	0.207
ΔNOL	37,146	0.082	1.071	0.000	0.000	0.009
EQINC	37,146	0.000	0.004	0.000	0.000	0.000
HHI	37,146	0.090	0.058	0.053	0.068	0.105
GEO_SEG	37,146	1.080	0.662	0.693	1.099	1.609
CASH	37,144	0.271	0.361	0.043	0.147	0.364
ΔGDWL	37,146	0.027	0.089	0.000	0.000	0.004
NEW_INVEST	37,146	0.112	0.189	0.003	0.052	0.147
PP&E	37,146	0.255	0.253	0.072	0.168	0.349
INTANG	37,146	0.202	0.539	0.004	0.089	0.279
PCD	37,146	0.159	0.366	0.000	0.000	0.000
PCD_TOTAL	37,146	0.211	0.582	0.000	0.000	0.000
LN_PCD_TOTAL	37,146	0.128	0.310	0.000	0.000	0.000
PCT_PCD	37,146	0.020	0.058	0.000	0.000	0.000
BOARD_TOTAL	29,603	7.789	2.497	6.000	8.000	9.000
LN_BOARD_TOTAL	29,603	2.123	0.350	1.946	2.197	2.303
HIGH_PROFILE	37,146	0.062	0.240	0.000	0.000	0.000
HIGHPROFILE_MORE	37,146	0.021	0.143	0.000	0.000	0.000
CAB_SEC	37,146	0.024	0.153	0.000	0.000	0.000
SENATOR	37,146	0.020	0.142	0.000	0.000	0.000
REP	37,146	0.032	0.175	0.000	0.000	0.000
GOV	37,146	0.012	0.108	0.000	0.000	0.000
PRES_VP	37,146	0.000	0.019	0.000	0.000	0.000
AFFILIATE_1	37,146	0.084	0.277	0.000	0.000	0.000
AFFILIATE_2	37,146	0.054	0.226	0.000	0.000	0.000
AFFILIATE_3	37,146	0.036	0.187	0.000	0.000	0.000
AFFILIATE_HOUSE	37,146	0.054	0.226	0.000	0.000	0.000
AFFILIATE_SENATE	37,146	0.054	0.226	0.000	0.000	0.000
AFFILIATE_WHOUSE	37,146	0.066	0.248	0.000	0.000	0.000
DUAL_AFFILIATE	37,146	0.012	0.108	0.000	0.000	0.000
TAX_EXPERT	37,146	0.012	0.109	0.000	0.000	0.000
TAXEXPERT_MORE	37,146	0.002	0.048	0.000	0.000	0.000
FINANCE_CMTE	37,146	0.007	0.085	0.000	0.000	0.000
JCT	37,146	0.001	0.034	0.000	0.000	0.000
WAYS_MEANS	37,146	0.005	0.069	0.000	0.000	0.000
IRS_COMM	37,146	0.001	0.034	0.000	0.000	0.000
GOVT_TENURE	37,146	2.733	9.036	0.000	0.000	0.000
LN_GOVT_TENURE	37,146	0.379	0.985	0.000	0.000	0.000
BOARD_TENURE	37,146	9.765	8.506	4.000	7.000	13.000

[a] All continuous variables are winsorized at the 1st and 99th percentiles.

[b] Variables are defined in Appendix I.

TABLE 1 (continued)

Panel B: Distribution by Industry of Politically Connected and Non-Politically Connected Firm-Years

Industry[a, b]	(1) Full Sample	(2) Politically Connected Firm-Years	(3) Distribution %'s Politically Connected Firm-Years to Total Firm-Years (within industry)	(4) Distribution %'s Politically Connected Firm-Years to Total Politically Connected Firm-Years
Agriculture	0	0	0.00%	0.00%
Aircraft	274	68	24.82%	1.15%
Alcoholic beverages	124	15	12.10%	0.25%
Apparel	631	70	11.09%	1.18%
Automobiles and trucks	660	131	19.85%	2.22%
Business services	5,592	943	16.86%	15.95%
Business supplies	495	105	21.21%	1.78%
Candy and soda	107	41	38.32%	0.69%
Chemicals	943	197	20.89%	3.33%
Coal	0	0	0.00%	0.00%
Computers	1,836	316	17.21%	5.34%
Construction	1,150	200	17.39%	3.38%
Construction materials	0	0	0.00%	0.00%
Consumer goods	586	82	13.99%	1.39%
Defense	102	50	49.02%	0.85%
Electrical equipment	579	61	10.54%	1.03%
Electronic equipment	3,310	407	12.30%	6.88%
Entertainment	456	97	21.27%	1.64%
Fabricated products	115	21	18.26%	0.36%
Food products	764	121	15.84%	2.05%
Healthcare	891	168	18.86%	2.84%
Machinery	1,603	202	12.60%	3.42%
Measuring and control equip.	1,254	152	12.12%	2.57%
Medical equipment	1,767	144	8.15%	2.43%
Miscellaneous	169	14	8.28%	0.24%
Nonmetallic mining	51	19	37.25%	0.32%
Other	263	30	11.41%	0.51%
Personal services	203	75	36.95%	1.27%
Petroleum and natural gas	1,772	358	20.20%	6.05%
Pharmaceutical products	3,090	514	16.63%	8.69%
Precious metals	23	10	43.48%	0.17%
Printing and publishing	310	110	35.48%	1.86%
Recreational products	330	52	15.76%	0.88%
Restaurants, hotel, motel	709	85	11.99%	1.44%
Retail	2,398	340	14.18%	5.75%
Rubber and plastic products	300	35	11.67%	0.59%
Shipbuilding, railroad equip.	101	35	34.65%	0.59%
Shipping containers	88	13	14.77%	0.22%
Steel works, etc.	580	63	10.86%	1.07%
Telecommunications	1,030	235	22.82%	3.97%
Textiles	0	0	0.00%	0.00%
Tobacco products	0	0	0.00%	0.00%
Transportation	767	141	18.38%	2.38%
Wholesale	1,723	194	11.26%	3.28%
	37,146	5,914		

[a] Industry distributions are based on Fama and French (1997) industry classes.

[b] Consistent with prior research, the following industries are excluded: utilities, banking, insurance, real estate, and trading.

TABLE 1 (continued)

Panel C: Correlation Matrix

Pearson (Spearman) coefficients are above (below) the diagonal.
Bold coefficients are significant at $p < 0.10$.
Variables are defined in the Appendix.

	PCD	*PCD_Total*	*High_Profile*	*Affiliate_1*	*Affiliate_2*	*Affiliate_3*	*Tax_Expert*	*Govt_Tenure*	*DTAX*	*Shelter*	*TA_ETR*	*ETR*	*CETR*	*ROA*	*NOL*
PCD		**0.949**	**0.589**	**0.694**	**0.550**	**0.447**	**0.253**	**0.885**	**-0.008**	**0.095**	**0.003**	**0.015**	**-0.005**	**0.025**	**-0.016**
PCD_Total	**0.997**		**0.621**	**0.673**	**0.551**	**0.449**	**0.271**	**0.895**	-0.005	**0.111**	0.002	**0.015**	-0.003	**0.031**	**-0.023**
High_Profile	**0.608**	**0.622**		**0.579**	**0.613**	**0.514**	**0.386**	**0.673**	0.006	**0.066**	0.008	**0.019**	-0.007	**0.039**	**-0.014**
Affiliate_1	**0.681**	**0.682**	**0.588**		**0.792**	**0.643**	**0.232**	**0.668**	-0.006	**0.090**	0.003	**0.012**	0.005	**0.026**	-0.005
Affiliate_2	**0.557**	**0.562**	**0.613**	**0.818**		**0.812**	**0.237**	**0.564**	-0.004	**0.067**	0.010	0.006	-0.001	**0.025**	-0.004
Affiliate_3	**0.461**	**0.466**	**0.536**	**0.677**	**0.827**		**0.207**	**0.463**	-0.004	**0.054**	0.005	0.005	-0.005	**0.020**	-0.004
Tax_Expert	**0.248**	**0.254**	**0.361**	**0.237**	**0.234**	**0.201**		**0.292**	-0.002	**0.019**	-0.002	0.001	-0.001	0.006	-0.003
Govt_Tenure	**0.941**	**0.945**	**0.658**	**0.669**	**0.564**	**0.470**	**0.270**		-0.002	**0.112**	-0.001	**0.016**	0.000	**0.034**	**-0.023**
DTAX	-0.008	-0.009	**-0.015**	-0.010	-0.007	**-0.018**	-0.006	-0.008		**0.217**	**0.190**	**-0.403**	**-0.186**	**0.446**	**0.030**
Shelter	**0.128**	**0.132**	**0.074**	**0.111**	**0.088**	**0.072**	**0.029**	**0.127**	**0.087**		**0.078**	**-0.122**	**-0.098**	**0.280**	**0.163**
TA_ETR	**0.019**	**0.020**	**0.017**	**0.012**	**0.019**	0.011	0.003	**0.013**	**0.191**	**0.118**		**-0.423**	**-0.206**	0.005	**0.046**
ETR	-0.006	-0.007	-0.006	**-0.018**	**-0.020**	-0.009	-0.005	-0.005	**-0.412**	**-0.244**	**-0.443**		**0.336**	**0.107**	**-0.117**
CETR	**-0.013**	**-0.013**	**-0.021**	-0.002	-0.007	-0.011	-0.003	-0.009	**-0.152**	**-0.085**	**-0.242**	**0.311**		0.011	**-0.131**
ROA	**-0.037**	**-0.038**	**-0.041**	**-0.032**	**-0.026**	**-0.020**	**-0.038**	**-0.034**	**-0.020**	**0.241**	**-0.039**	**0.192**	**0.095**		**-0.144**
NOL	0.000	-0.002	-0.001	**0.016**	0.005	-0.004	-0.004	-0.005	**0.055**	**0.221**	**0.064**	**-0.156**	**-0.156**	**-0.147**	
%FAssets	**0.042**	**0.045**	**0.020**	**0.046**	**0.035**	**0.026**	0.001	**0.044**	**0.111**	**0.603**	**0.121**	**-0.313**	**-0.039**	**-0.020**	**0.214**
Size	**0.241**	**0.246**	**0.144**	**0.179**	**0.143**	**0.120**	**0.065**	**0.248**	**-0.053**	**0.636**	**0.052**	**-0.119**	**-0.024**	**0.163**	**0.142**
Lev	**0.124**	**0.125**	**0.107**	**0.106**	**0.092**	**0.071**	**0.040**	**0.129**	**-0.022**	**-0.052**	**-0.023**	-0.010	**-0.064**	**-0.280**	**0.101**
MTB	**0.040**	**0.042**	0.001	0.008	0.010	**0.018**	-0.007	**0.045**	-0.003	**0.298**	**0.040**	**-0.047**	**-0.041**	**0.503**	-0.003
PCT_IO	**0.048**	**0.049**	**0.021**	**0.040**	**0.038**	**0.030**	0.001	**0.057**	**-0.016**	**0.272**	-0.005	**-0.102**	**-0.077**	-0.010	**0.175**
ΔNOL	**0.022**	**0.022**	0.011	0.011	0.012	0.005	0.005	**0.022**	**0.067**	**0.160**	**-0.037**	-0.002	**0.069**	**-0.063**	**0.045**
EqInc	**0.062**	**0.064**	**0.051**	**0.039**	**0.046**	**0.035**	**0.023**	**0.067**	**-0.069**	**0.115**	**0.034**	**-0.052**	-0.008	-0.010	**0.032**
HHI	0.009	0.009	**0.023**	**0.029**	0.011	0.009	**0.017**	**0.012**	**-0.114**	**-0.163**	-0.010	**0.124**	**0.079**	**-0.057**	**-0.049**
Geo_Seg	**0.048**	**0.050**	**0.032**	**0.049**	**0.036**	**0.030**	-0.003	**0.049**	**0.088**	**0.550**	**0.098**	**-0.265**	**-0.027**	**-0.028**	**0.196**
Cash	**-0.075**	**-0.075**	**-0.070**	**-0.053**	**-0.045**	**-0.025**	**-0.032**	**-0.074**	**0.064**	**0.199**	**0.103**	**-0.126**	**-0.054**	**0.274**	**0.029**
ΔGDWL	**0.052**	**0.051**	0.003	0.009	0.008	**0.014**	0.004	**0.048**	**0.015**	**0.196**	0.002	**-0.066**	**0.015**	**0.020**	**0.127**
New_Invest	**-0.019**	**-0.018**	**-0.022**	**-0.015**	**-0.016**	**-0.022**	-0.007	**-0.018**	**0.068**	**0.209**	**0.069**	**-0.113**	**-0.122**	**0.211**	**0.056**
PP&E	**0.024**	**0.025**	**0.067**	**0.021**	**0.033**	**0.025**	0.006	**0.026**	**-0.076**	**-0.114**	**-0.022**	**0.080**	**-0.023**	**0.025**	**-0.117**
Intang	**0.089**	**0.089**	**0.024**	**0.052**	**0.036**	**0.027**	**0.023**	**0.085**	**0.071**	**0.180**	**-0.043**	**-0.085**	-0.005	**-0.099**	**0.183**
%Pol_Connect	**0.227**	**0.230**	**0.164**	**0.097**	**0.116**	**0.115**	**0.057**	**0.225**	**-0.021**	**-0.138**	0.010	**0.127**	**-0.032**	**0.025**	**-0.153**

TABLE 1, Panel C (continued)

	%FAssets	*Size*	*Lev*	*MTB*	*PCT_IO*	*ΔNOL*	*EqInc*	*HHI*	*Geo_Seg*	*Cash*	*ΔGDWL*	*New_Invest*	*PP&E*	*Intang*	*%Pol_Connect*
PCD	**0.029**	**0.223**	**0.099**	**0.013**	**0.075**	**-0.011**	**0.040**	**0.020**	**0.040**	**-0.054**	**0.026**	**-0.030**	**0.035**	**0.030**	**0.218**
PCD_Total	**0.037**	**0.240**	**0.098**	**0.017**	**0.078**	**-0.010**	**0.048**	**0.023**	**0.046**	**-0.059**	**0.028**	**-0.031**	**0.037**	**0.030**	**0.218**
High_Profile	**0.022**	**0.143**	**0.090**	-0.005	**0.045**	**-0.009**	**0.035**	**0.038**	**0.028**	**-0.064**	**0.011**	**-0.031**	**0.074**	**0.011**	**0.156**
Affiliate_1	**0.030**	**0.167**	**0.084**	0.008	**0.057**	**-0.009**	**0.034**	**0.039**	**0.043**	**-0.051**	0.004	**-0.023**	**0.040**	**0.023**	**0.104**
Affiliate_2	**0.029**	**0.126**	**0.069**	-0.006	**0.057**	**-0.009**	**0.039**	**0.027**	**0.031**	**-0.051**	-0.001	**-0.027**	**0.039**	0.007	**0.108**
Affiliate_3	**0.024**	**0.104**	**0.050**	-0.002	**0.046**	-0.008	**0.030**	**0.020**	**0.026**	**-0.032**	-0.003	**-0.027**	**0.028**	0.005	**0.104**
Tax_Expert	0.001	**0.059**	**0.038**	0.002	**0.014**	-0.008	0.008	**0.017**	0.002	**-0.026**	**0.011**	**-0.019**	**0.014**	**0.012**	**0.057**
Govt_Tenure	**0.032**	**0.244**	**0.109**	**0.013**	**0.084**	**-0.009**	**0.055**	**0.032**	**0.041**	**-0.062**	**0.026**	**-0.032**	**0.046**	**0.033**	**0.211**
DTAX	**0.037**	**0.021**	**0.012**	**-0.059**	**0.022**	**0.046**	0.004	**0.013**	**0.055**	**-0.103**	-0.001	**-0.130**	**0.015**	**-0.038**	-0.009
Shelter	**0.402**	**0.536**	**-0.058**	**0.082**	**0.273**	**0.229**	**0.102**	**-0.070**	**0.390**	**0.068**	**0.086**	**0.070**	**-0.060**	**0.076**	**-0.111**
TA_ETR	**0.036**	0.010	-0.009	**0.022**	**-0.019**	-0.007	**0.034**	-0.007	**0.026**	**0.099**	0.012	**0.056**	0.001	**-0.042**	-0.002
ETR	**-0.129**	0.009	**0.022**	**-0.049**	**-0.027**	**-0.019**	-0.008	**0.079**	**-0.100**	**-0.119**	-0.002	**-0.068**	**0.051**	**0.014**	**0.075**
CETR	-0.011	**-0.031**	**-0.061**	**-0.068**	**-0.062**	-0.006	**-0.015**	**0.058**	-0.009	**-0.086**	**-0.013**	**-0.078**	**-0.072**	-0.010	-0.007
ROA	**0.115**	**0.322**	**0.062**	**-0.201**	**0.194**	**-0.184**	**0.113**	**0.136**	**0.208**	**-0.356**	**0.022**	**-0.355**	**0.131**	**-0.072**	**-0.027**
NOL	**0.109**	**0.022**	**0.043**	**0.035**	**0.103**	**0.098**	**-0.026**	**-0.071**	**0.093**	**0.049**	**0.024**	**0.050**	**-0.097**	**0.041**	**-0.138**
%FAssets		**0.277**	**-0.036**	**-0.019**	**0.203**	**-0.022**	**0.053**	**-0.126**	**0.687**	**0.023**	**0.033**	0.006	**-0.097**	**0.026**	**-0.130**
Size	**0.319**		**0.191**	**0.157**	**0.456**	**-0.042**	**0.114**	**0.080**	**0.285**	**-0.033**	**0.081**	**0.015**	**0.133**	**0.102**	-0.004
Lev	**-0.032**	**0.224**		**0.061**	**0.114**	**-0.025**	**0.053**	**0.143**	**-0.015**	**-0.310**	**0.099**	**-0.037**	**0.338**	**0.094**	**0.095**
MTB	**0.119**	**0.465**	**-0.057**		0.000	**0.091**	**-0.028**	**-0.070**	**-0.068**	**0.252**	-0.002	**0.244**	**-0.049**	**-0.015**	**0.024**
PCT_IO	**0.197**	**0.323**	**0.094**	**0.118**		**-0.036**	**0.053**	**-0.029**	**0.220**	**-0.035**	**0.046**	**0.009**	**0.011**	**0.049**	**-0.077**
ΔNOL	**0.038**	**0.069**	**0.067**	**-0.018**	0.005		**-0.014**	**-0.035**	**-0.045**	**0.110**	**0.014**	**0.122**	**-0.017**	**0.041**	-0.008
EqInc	**0.078**	**0.163**	**0.130**	-0.003	**0.067**	**0.024**		**0.053**	**0.067**	**-0.088**	-0.001	**-0.049**	**0.068**	-0.005	**0.034**
HHI	**-0.257**	**0.017**	**0.133**	**-0.076**	**-0.073**	**0.017**	**0.031**		**-0.097**	**-0.197**	**-0.025**	**-0.179**	**0.240**	**-0.035**	**0.073**
Geo_Seg	**0.855**	**0.285**	**-0.014**	**0.092**	**0.189**	**0.029**	**0.085**	**-0.216**		**-0.099**	**0.015**	**-0.092**	**-0.107**	**0.019**	**-0.131**
Cash	**0.200**	-0.002	**-0.534**	**0.236**	**0.038**	**-0.055**	**-0.104**	**-0.185**	**0.149**		-0.008	**0.432**	**-0.218**	**0.028**	**0.015**
ΔGDWL	**0.167**	**0.235**	**0.144**	**0.083**	**0.163**	**0.077**	**0.045**	**-0.072**	**0.154**	**-0.071**		**0.322**	0.001	**0.399**	**0.029**
New_Invest	**0.163**	**0.153**	**-0.054**	**0.226**	**0.142**	**0.024**	**-0.028**	**-0.192**	**0.136**	**0.163**	**0.342**		**0.087**	**0.130**	**0.026**
PP&E	**-0.176**	**0.085**	**0.313**	**-0.024**	**-0.055**	**0.051**	**0.090**	**0.221**	**-0.152**	**-0.322**	**-0.135**	**0.061**		**-0.049**	**0.155**
Intang	**0.166**	**0.261**	**0.280**	**0.058**	**0.196**	**0.035**	**0.022**	**-0.087**	**0.154**	**-0.184**	**0.562**	**0.109**	**-0.308**		0.005
%Pol_Connect	**-0.152**	**-0.056**	**0.081**	0.004	**-0.077**	**0.017**	**0.062**	**0.047**	**-0.132**	**-0.093**	**-0.044**	**-0.030**	**0.158**	**-0.048**	

23% (28%) of total assets (*p*-value < 0.01). Further, politically connected and non-politically connected firm-years have, on average, eight board members (*BOARD_TOTAL* = 7.991 and 7.739, respectively; *p*-value < 0.01), and approximately one politically connected director serves on a board (*PCD_TOTAL* = 1.322). Political directors serve approximately 17 years in their former political careers (*GOVT_TENURE* = 17.168), and both politically connected directors and non-politically connected directors serve 10 years, on average, in their board directorships (*BOARD_TENURE* = 10.012 and 9.718, respectively; *p*-value < 0.05).

Lastly, difference in means for the five tax proxies suggest there is variation in the type of tax avoidance politically connected directors influence. Specifically, politically (non-politically) connected firm-years have mean *DTAX* of -0.007 (-0.004), mean *TA_ETR* equals -0.001 (-0.002), and mean *CETR* equals 0.237 (0.239), (*p*-values > 0.10). On the other hand, mean *SHELTER* for politically (non-politically) connected firm-years is 0.285 (0.223) (*p*-value < 0.01), and mean *ETR* for politically (non-politically) connected firm-years is 0.300 (0.294) (*p*-value < 0.05).

Overall, the univariate results show no differences in some tax proxies and significant differences in other firm characteristics. Inferences from univariate results are difficult to assess when such large differences exist, and so are explored more thoroughly using multivariate tests in the next section. At the least, the univariate results highlight the importance of addressing these differences in the research design, and why they should be included as control variables.

TABLE 2

Univariate Test of Differences between Politically Connected Firm-Years and Non-Politically Connected Firm-Years

	Politically Connected Firm-Years						Non-Politically Connected Firm-Years					
Variable[a]	*N*	Mean	Std. Dev.	25th Pctl	Median	75th Pctl	*N*	Mean[b]	25th Pctl	Std. Dev.	Median[b]	75th Pctl
Covariates from selection model												
ROA	5,914	0.009	0.243	-0.026	0.061	0.122	31,232	**-0.010**	0.274	-0.057	**0.050**	0.126
NOL	5,914	0.465	0.499	0.000	0.000	1.000	31,232	**0.487**	0.500	0.000	**0.000**	1.000
%FASSETS	5,914	0.289	0.373	0.000	0.137	0.463	31,232	**0.260**	0.362	0.000	**0.064**	0.437
SIZE	5,914	6.895	2.129	5.400	6.932	8.348	31,232	**5.650**	1.970	4.238	**5.684**	6.984
LEV	5,914	0.181	0.169	0.013	0.156	0.289	31,232	**0.136**	0.165	0.000	**0.066**	0.236
MTB	5,914	3.550	4.349	1.421	2.289	3.799	31,232	**3.398**	4.421	1.265	**2.083**	3.652
PCT_IO	5,914	0.464	0.362	0.000	0.536	0.793	31,232	**0.390**	0.359	0.000	**0.329**	0.740
%POL_CONNECT	5,914	0.197	0.075	0.143	0.192	0.245	31,232	**0.151**	0.075	0.098	**0.146**	0.201
Tax Proxies												
DTAX	5,748	-0.007	0.132	-0.022	0.001	0.024	30,434	-0.004	0.142	-0.026	0.002	0.031
SHELTER	5,320	0.285	0.251	0.069	0.205	0.471	28,444	**0.223**	0.233	0.043	**0.125**	0.357
TA_ETR	3,443	-0.001	0.132	-0.053	-0.007	0.045	16,842	-0.002	0.143	-0.063	**-0.011**	0.051
ETR	4,080	0.300	0.159	0.232	0.324	0.377	20,175	**0.294**	0.168	0.214	0.326	0.377
CETR	3,969	0.237	0.188	0.099	0.223	0.327	19,594	0.239	0.198	0.080	0.227	0.339
Additional Firm Characteristics												
ΔNOL	5,914	0.056	0.596	0.000	0.000	0.005	31,232	**0.087**	1.139	0.000	0.000	0.009
EQINC	5,914	0.001	0.004	0.000	0.000	0.000	31,232	**0.000**	0.003	0.000	**0.000**	0.000
HHI	5,914	0.093	0.060	0.053	0.072	0.108	31,232	**0.089**	0.057	0.053	**0.067**	0.103
GEO_SEG	5,914	1.141	0.660	0.693	1.099	1.609	31,232	**1.068**	0.661	0.693	**1.099**	1.609
CASH	5,914	0.226	0.332	0.036	0.106	0.274	31,232	**0.279**	0.366	0.045	**0.156**	0.380
ΔGDWL	5,914	0.032	0.098	0.000	0.000	0.009	31,232	**0.026**	0.087	0.000	**0.000**	0.003
NEW_INVEST	5,914	0.099	0.175	0.003	0.043	0.128	31,232	**0.115**	0.191	0.003	**0.054**	0.151
PP&E	5,914	0.275	0.255	0.088	0.185	0.384	31,232	**0.251**	0.252	0.069	**0.164**	0.342
INTANG	5,914	0.239	0.781	0.019	0.127	0.331	31,232	**0.195**	0.480	0.002	**0.083**	0.269
PCD	5,914	1.000	0.000	1.000	1.000	1.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
PCD_TOTAL	5,914	1.322	0.813	1.000	1.000	1.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
LN_PCD_TOTAL	5,914	0.805	0.244	0.693	0.693	0.693	31,232	**0.000**	0.000	0.000	**0.000**	0.000
PCT_PCD	5,914	0.123	0.093	0.083	0.111	0.154	31,232	**0.000**	0.000	0.000	**0.000**	0.000
BOARD_TOTAL	5,914	7.991	3.826	6.000	9.000	11.000	23,689	**7.739**	2.031	6.000	**7.000**	9.000
LN_BOARD_TOTAL	5,914	2.049	0.625	1.946	2.303	2.485	23,689	**2.141**	0.232	1.946	**2.079**	2.303
Political Director Characteristics												
HIGH_PROFILE	5,914	0.387	0.487	0.000	0.000	1.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
HIGHPROFILE_MORE	5,914	0.131	0.338	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
CAB_SEC	5,914	0.151	0.358	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
SENATOR	5,914	0.129	0.335	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
REP	5,914	0.199	0.399	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
GOV	5,914	0.075	0.263	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
PRES_VP	5,914	0.002	0.047	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
AFFILIATE_1	5,914	0.526	0.499	0.000	1.000	1.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
AFFILIATE_2	5,914	0.340	0.474	0.000	0.000	1.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
AFFILIATE_3	5,914	0.228	0.420	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
AFFILIATE_HOUSE	5,914	0.340	0.474	0.000	0.000	1.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
AFFILIATE_SENATE	5,914	0.340	0.474	0.000	0.000	1.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
AFFILIATE_WHOUSE	5,914	0.414	0.493	0.000	0.000	1.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
DUAL_AFFILIATE	5,914	0.075	0.263	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
TAX_EXPERT	5,914	0.075	0.264	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
TAXEXPERT_MORE	5,914	0.014	0.119	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
FINANCE_CMTE	5,914	0.045	0.208	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
JCT	5,914	0.007	0.085	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
WAYS_MEANS	5,914	0.030	0.170	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
IRS_COMM	5,914	0.007	0.085	0.000	0.000	0.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
GOVT_TENURE	5,914	17.168	16.280	4.000	11.000	27.000	31,232	**0.000**	0.000	0.000	**0.000**	0.000
LN_GOVT_TENURE	5,914	2.382	1.152	1.609	2.485	3.332	31,232	**0.000**	0.000	0.000	**0.000**	0.000
BOARD_TENURE	5,914	10.012	8.427	4.000	7.000	13.000	31,232	**9.718**	8.521	4.000	**7.000**	13.000

All continous variables are winsorized at the 1st and 99th percentiles.

[a] Variables are defined in Appendix I.

[b] Bold values indicate significance at least at the 10% level.

Main Results

Results from Selection Model

Before I examine the relationship between politically connected director characteristics and tax avoidance, I first establish whether the mere presence of political directors is associated with firms' tax avoidance activities.[38] Accordingly, I estimate the selection model, Equation (1), and present the results in Table 3, Panel A. The area under the ROC curve is 0.75. The area under the ROC curve is a reflection of how well a model discriminates between groups with and without treatment. A range of 0.70 to 0.80 is interpreted as a "fair" test (Hosmer and Lemeshow 2002). Thus, a ROC curve value of 0.75 suggests that my selection model has acceptable discriminatory power in distinguishing between firms that appoint a politically connected individual to the board and firms that do not appoint a politically connected individual to the board.

With regard to the determinants, I find that less profitable firms (*ROA*) (coef. = -0.148; *z* = -1.64), and firms with fewer growth opportunities (*MTB*) (coef. = -0.027; *z* = -5.91) exhibit a higher likelihood of appointing a politically connected individual to the board. Additionally, firm size (*SIZE*) (coef. = 0.212; *z* = 16.32), debt levels (*LEV*) (coef. = 0.618; *z* = 5.74), and the percentage of politically connected firms in a firm's industry group (*%POL_CONNECT*) (coef. = 3.115; *z* = 8.50) are important determinants of the likelihood of appointing politically connected individuals to the board. I use the coefficient estimates from Equation (1) to construct an inverse Mills ratio (*INVMILLS*), which I include as a control variable in Equation (2).

[38] I also report the findings from the replication of Kim and Zhang (2016) below.

Multivariate Results

Panel B presents the results from estimating Equation (2), which measures the level of tax avoidance firms undertake in politically connected firm-years relative to non-politically connected firm-years. I estimate five measures of tax avoidance to capture various tax avoidance strategies firms may engage in. *DTAX* (column 1), *SHELTER* (column 2), and *TA_ETR* (column 3) capture more aggressive tax avoidance strategies, while *ETR* (column 4), and *CETR* (column 5) capture less aggressive tax avoidance strategies. I find a positive and significant association between *PCD* and *DTAX* (coef. = 0.042; t = 2.95), and *SHELTER* (coef. = 0.078; t = 2.86), which suggests that firms with political directors on the board engage in aggressive tax avoidance strategies. I do not find an association between *PCD* and *TA_ETR*.[39] I also find no significant relation between *PCD* and *ETR* and *CETR*. Thus, the overall findings suggest that the presence of politically connected directors is associated with aggressive tax strategies, which is "probably due to the mitigating effect of political connections on the cost of aggressive and complicated tax strategies" (Kim and Zhang 2016), relative to less aggressive tax strategies.

The coefficients on the control variables are generally consistent with prior research (e.g. Kim and Zhang 2016; Brown et al. 2015). For example, *ROA*, *NOL*, *%FASSETS*, and *CASH* are positively and significantly associated with most tax avoidance measures (p-values < 0.01). Also politically connected firms that engage in more aggressive tax avoidance activities have higher market-to-book ratios (p-value < 0.01), and firms that engage in less aggressive tax avoidance activities have lower market-to-book ratios (p-value < 0.01). The coefficients on other control variables are somewhat inconsistent across the tax avoidance

[39] I also use an alternative research design, quantile regression, which allows me to examine the relationship between political directors and tax avoidance across different parts of the tax avoidance distribution. The results are reported in Section V.

proxies. For example, firm size (*SIZE*) is negatively related to *DTAX*, and positively associated with *SHELTER*, *TA_ETR*, but are consistent with the findings in Kim and Zhang (2016).

Characteristics of Politically Connected Directors

High-Profile Directors

Table 4 reports the results from estimating Equation (3), which examines the association between tax avoidance and high-profile directors. The variable of interest is *HIGH_PROFILE*. I find a positive and significant association between *HIGH_PROFILE* and some of the tax avoidance measures. Specifically, I find that high-profile directors are associated with aggressive tax avoidance when *DTAX* (coef. = 0.043; t = 3.20), and *SHELTER* (coef. = 0.085; t = 3.10) are the dependent variables, controlling for the presence of *LOW_PROFILE* directors and firm characteristics. I do not find a significant relation between *HIGH_PROFILE* and *TA_ETR*, *ETR*, and *CETR*.

Interestingly, the results also show that *LOW_PROFILE* directors are also associated with aggressive tax avoidance. Therefore, I test whether the difference between the coefficients on *HIGH_PROFILE* and *LOW_PROFILE* are statistically different for each tax proxy. I find a significant difference between the coefficients when *SHELTER* is the dependent variable (p-value < 0.10). Accordingly, I reject the null hypothesis ($\beta_1 = \beta_2$), and accept the alternative that political directors who are high-profile are associated with higher levels of aggressive tax avoidance, compared to directors who are low-profile, when *SHELTER* serves as my proxy for tax avoidance. This result suggests that high-profile directors likely have stronger government connections, which provides political cover to engage in greater risk-taking tax strategies.

TABLE 3

Tax Avoidance and Political Connections for Politically Connected Firm-Years relative to Non-Politically Connected Firm-Years

Probability of Appointing a Politically Connected Individual to the Board of Directors

Panel A: Results from Selection Equation

Variable[a]	Pred. Sign	Coefficents (*z*-statistic)[b, c]
INTERCEPT	?	-2.795***
		(-14.48)
ROA	?	-0.148*
		(-1.64)
NOL	?	0.017
		(0.45)
%FASSETS	?	-0.050
		(-0.86)
SIZE	+	0.212***
		(16.32)
LEV	+	0.618***
		(5.74)
MTB	?	-0.027***
		(-5.91)
PCT_IO	?	-0.042
		(-0.78)
%POL_CONNECT	+	3.115***
		(8.50)
Industry Fixed Effects		Yes
Year Fixed Effects		Yes
Area Under ROC Curve		0.75
Observations		37,146

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm (Peterson 2009).

TABLE 3 (continued)

Panel B: Results from Second-stage Equation

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
PCD	+/–	0.042***	0.078***	-0.015	0.017	-0.012
		(2.95)	(2.86)	(-0.65)	(0.96)	(-0.43)
ROA	+	0.323***	0.222***	-0.071***	0.283***	0.062***
		(26.99)	(15.20)	(-3.10)	(14.72)	(2.53)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.045***
		(10.89)	(12.18)	(3.07)	(-5.87)	(-10.53)
ΔNOL	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.85)	(0.63)
%FASSETS	+	0.008***	0.087***	0.006	-0.025***	0.026***
		(2.89)	(13.55)	(0.84)	(-3.64)	(3.57)
EQINC	?	-1.317***	2.100***	1.249***	-0.989*	-0.919
		(-5.74)	(4.66)	(2.79)	(-1.88)	(-1.55)
SIZE	?	-0.014***	0.045***	0.002	0.002	-0.000
		(-12.17)	(17.15)	(1.45)	(1.11)	(-0.05)
LEV	+	0.025***	-0.160***	0.017	-0.003	-0.073***
		(5.91)	(-13.05)	(1.32)	(-0.16)	(-4.49)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.01)	(2.66)	(0.17)	(-4.82)	(-4.00)
HHI	?	0.028**	-0.063*	0.069**	-0.053	0.070*
		(2.24)	(-1.67)	(1.98)	(-1.51)	(1.61)
GEO_SEG	+	-0.005**	0.037***	0.001	0.000	0.002
		(-2.42)	(11.57)	(0.30)	(0.12)	(0.42)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.95)	(4.15)	(5.94)	(-5.59)	(-7.88)
ΔGDWL	?	-0.016	0.039**	0.036	-0.010	0.038**
		(-1.00)	(2.05)	(1.53)	(-0.40)	(2.10)
NEW_INVEST	?	0.001	0.086***	0.067***	-0.060***	-0.029
		(0.10)	(5.68)	(3.74)	(-4.74)	(-1.40)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.48)	(-3.35)	(0.90)	(-0.71)	(-4.81)
INTANG	?	0.004**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(0.95)	(-3.38)	(1.99)	(-1.09)
INVMILLS	?	-0.020***	-0.037**	0.010	-0.012	0.005
		(-2.49)	(-2.42)	(0.71)	(-1.23)	(0.30)
INTERCEPT	?	0.030***	-0.036**	-0.369***	0.328***	0.348***
		(5.57)	(-2.18)	(-27.24)	(19.85)	(20.75)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
Observations		36,182	33,764	20,285	24,255	23,563
R^2		26.63%	51.98%	2.71%	9.55%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 4

Second-stage: Tax Avoidance and Politically Connected Directors' Political Profile

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
HIGH_PROFILE	?	0.043***	0.085***	-0.012	0.020	-0.011
		(3.20)	(3.10)	(-0.53)	(1.14)	(-0.41)
LOW_PROFILE	?	0.041***	0.071***	-0.017	0.013	-0.012
		(2.67)	(2.54)	(-0.76)	(0.75)	(-0.45)
ROA	+	0.323***	0.222***	-0.071***	0.283***	0.062***
		(26.90)	(15.20)	(-3.10)	(14.72)	(2.53)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.045***
		(10.89)	(12.18)	(3.07)	(-5.87)	(-10.53)
ΔNOL	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.84)	(0.63)
%FASSETS	+	0.008***	0.087***	0.006	-0.025***	0.026***
		(2.87)	(13.55)	(0.84)	(-3.64)	(3.56)
EQINC	?	-1.317***	2.098***	1.247***	-0.990*	-0.919
		(-5.74)	(4.64)	(2.79)	(-1.88)	(-1.55)
SIZE	?	-0.014***	0.045***	0.002	0.002	0.000
		(-12.09)	(17.26)	(1.46)	(1.13)	(-0.05)
LEV	+	0.025***	-0.160***	0.017	-0.003	-0.073***
		(5.91)	(-13.03)	(1.30)	(-0.17)	(-4.49)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.01)	(2.65)	(0.17)	(-4.82)	(-4.00)
HHI	?	0.028**	-0.063*	0.069**	-0.053	0.070*
		(2.25)	(-1.67)	(1.98)	(-1.50)	(1.60)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.42)	(11.56)	(0.29)	(0.11)	(0.42)
CASH	-	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.97)	(4.17)	(5.95)	(-5.58)	(-7.88)
ΔGDWL	?	-0.016	0.039**	0.036	-0.010	0.038**
		(-0.99)	(2.05)	(1.52)	(-0.41)	(2.10)
NEW_INVEST	?	0.001	0.086***	0.067***	-0.060***	-0.029
		(0.10)	(5.67)	(3.74)	(-4.75)	(-1.40)
PP&E	?	-0.007	-0.037***	0.010	-0.007	-0.069***
		(-1.49)	(-3.36)	(0.89)	(-0.72)	(-4.81)
INTANG	?	0.005**	0.004	-0.044***	0.019**	-0.010
		(2.07)	(0.97)	(-3.36)	(2.01)	(-1.09)
INVMILLS	?	-0.020***	-0.036**	0.010	-0.012	0.005
		(-2.43)	(-2.33)	(0.73)	(-1.20)	(0.31)
INTERCEPT	?	0.030***	-0.039***	-0.369***	0.328***	0.348***
		(5.56)	(-2.56)	(-27.22)	(19.83)	(20.74)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.63%	51.99%	2.71%	9.55%	7.99%
Prob > F						
high_profile = low_profile		0.478	**0.079**	0.365	0.226	0.870

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Political Party Affiliation

Table 5 reports the results from estimating Equation (4), which examines the association between tax avoidance and politically connected directors' political party affiliation with the party in power. I examine three different scenarios: 1) affiliation with the party in power that controls the senate, house, or white house; 2) affiliation with the party in power that controls the senate and house; and 3) affiliation with the party in power that controls the senate, house, and white house. Panel A reports the results for the relation between tax avoidance and political directors' party affiliation to the political party that controls either the senate, house, or white house. I find a positive and significant relation between *AFFILIATE_1* and *DTAX* (coef. = 0.045; t = 3.10), and *SHELTER* (coef. = 0.090; t = 3.29), controlling for non-affiliate firm-years (*NO_AFFILIATE_1*) and firm characteristics. I do not find a significant relation between *AFFILIATE_1* and *TA_ETR*, *ETR*, and *CETR*.

Also, the coefficients on *NO_AFFILIATE_1* are significant when *DTAX* and *SHELTER* are the dependent variables (p-values < 0.01), which suggest that a political director's affiliation to the political party that controls either branch of government is potentially trivial for firms' tax avoidance strategies. Therefore, I test whether the difference between the coefficients on *AFFILIATE_1* and *NO_AFFILIATE_1* are statistically different for each tax avoidance measure. I find a statistical difference when *SHELTER* is the tax avoidance measure (p-value < 0.01), and no significant difference between coefficients for the other tax avoidance measures (p-values > 0.10). Nonetheless, this result provides some support for my hypothesis, i.e. political directors affiliated with the political party in power for either branch of government are associated with higher levels of tax aggressiveness.

Panel B reports the results for the association between tax avoidance and political directors' party affiliation with the political party that controls both the senate and house. I find a positive and significant relation between *AFFILIATE_2* and *DTAX* (coef. = 0.041; t = 3.04), and *SHELTER* (coef. = 0.088; t = 3.18), controlling for non-affiliate firm-years (*NO_AFFILIATE_2*) and firm characteristics. I do not find a statistical relation when the other tax avoidance measures serve as my proxies for tax avoidance. Moreover, the results show the coefficients on *NO_AFFILIATE_2* are also significant and positive when *DTAX* and *SHELTER* are the tax avoidance measures. Therefore, I test whether the coefficients between *AFFILIATE_2* and *NO_AFFILIATE_2* are statistically different, i.e., ($\beta_1 \neq \beta_2$). I find that firms with political directors affiliated with the political party that controls the senate and house are associated with higher levels of aggressive tax avoidance (p-value < 0.05), which supports *H2*.

Panel C presents the results for the association between tax avoidance and political directors' party affiliation with the political party that controls the senate, house, and white house. I find a significant and positive relationship between *AFFILIATE_3* and *DTAX* (coef. = 0.038; t = 2.71), and *SHELTER* (coef. = 0.087; t = 3.15), controlling for non-affiliate firm-years (*NO_AFFILIATE_3*) and firm characteristics. This finding suggests that political connections through party affiliation with all three branches of government influence firms' tax avoidance behavior. However, I also find similar results for control variable, *NO_AFFILIATE_3*. Accordingly, I test whether the coefficients between *AFFILIATE_3* are *NO_AFFILIATE_3* are statistically different. I find that political directors affiliated with the political party that controls all three branches of government are more tax aggressive, when *SHELTER* serves as my proxy for tax avoidance (p-value < 0.10), which supports *H2*. I also

find a statistical difference when *DTAX* is the tax avoidance proxy (*p*-value < 0.05). However, the magnitude of the coefficient on *AFFILIATE_3* is smaller than that on *NO_AFFILIATE_3*, which suggests firms with political directors affiliated with the political party that controls all three branches of government are less tax aggressive, when *DTAX* serves as my proxy for tax avoidance. Nonetheless, in aggregate the findings suggest that firms with political directors affiliated with the party in power that controls one or more branch of government engage in aggressive tax avoidance.

Political Experience

Lastly, the results for my third characteristic, political experience, are presented in Table 6. The coefficient of interest is on the interaction term *PCD*GOVT_TENURE*, which is positive and significant when *DTAX* (coef. = 0.004; *t* = 2.19) and *SHELTER* (coef. = 0.007; *t* = 1.69) serve as my proxies for tax avoidance. The findings support *H3*, and suggest that firms whose political directors have lengthy government service engage in aggressive tax avoidance strategies. I do not find a significant relation when the other tax avoidance measures serve as my proxies for tax avoidance. Overall, the findings suggest that politically connected directors with lengthy government experience potentially use their social capital and influential political networks to shield firms from political costs associated with engaging in aggressive tax avoidance activities.

TABLE 5

Second-stage: Tax Avoidance and Political Dirctors' Political Party Affiliation

Panel A: Tax Avoidance and Political Directors' Affiliation with the Political Party that Controls the Senate, House, or White House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_1	?	0.045***	0.090***	-0.015	0.017	-0.012
		(3.10)	(3.29)	(-0.68)	(0.89)	(-0.42)
NO_AFFILIATE_1	?	0.041***	0.076***	-0.014	0.017	-0.012
		(2.87)	(2.76)	(-0.64)	(0.98)	(-0.44)
ROA	+	0.323***	0.223***	-0.071***	0.283***	0.062***
		(27.04)	(15.22)	(-3.09)	(14.70)	(2.53)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.045***
		(10.90)	(12.18)	(3.07)	(-5.87)	(-10.52)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.49)	(-1.85)	(0.63)
%FASSETS	+	0.008***	0.087***	0.006	-0.025***	0.026***
		(2.89)	(13.56)	(0.84)	(-3.64)	(3.57)
EQINC	?	-1.318***	2.090***	1.249***	-0.989*	-0.919
		(-5.77)	(4.63)	(2.80)	(-1.88)	(-1.55)
SIZE	?	-0.014***	0.045***	0.002	0.002	0.000
		(-12.29)	(17.03)	(1.45)	(1.11)	(-0.05)
LEV	+	0.025***	-0.161***	0.017	-0.003	-0.073***
		(5.86)	(-13.13)	(1.32)	(-0.16)	(-4.48)
MTB	?	0.001***	0.002***	0.000	-0.004***	-0.003***
		(4.03)	(2.68)	(0.17)	(-4.82)	(-4.00)
HHI	?	0.028**	-0.064*	0.069**	-0.053	0.070*
		(2.23)	(-1.71)	(1.98)	(-1.51)	(1.61)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.43)	(11.56)	(0.30)	(0.12)	(0.42)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.96)	(4.16)	(5.93)	(-5.59)	(-7.87)
Δ*GDWL*	?	-0.016	0.040**	0.036	-0.010	0.038**
		(-0.99)	(2.11)	(1.52)	(-0.40)	(2.10)
NEW_INVEST	?	0.001	0.086***	0.067***	-0.060***	-0.029
		(0.10)	(5.67)	(3.74)	(-4.75)	(-1.40)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.48)	(-3.34)	(0.90)	(-0.71)	(-4.81)
INTANG	?	0.004**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(0.93)	(-3.38)	(1.99)	(-1.09)
INVMILLS	?	-0.020***	-0.039***	0.010	-0.012	0.005
		(-2.55)	(-2.62)	(0.73)	(-1.21)	(0.30)
INTERCEPT	?	0.030***	-0.038***	-0.369***	0.328***	0.348***
		(5.54)	(-2.35)	(-27.28)	(19.79)	(20.63)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.63%	51.99%	2.71%	9.55%	7.99%
Prob > F						
affiliate_1 = no_affiliate_1		0.179	**0.011**	0.824	0.997	0.569

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 5 (continued)

Panel B: Tax Avoidance and Political Directors' Affiliation with the Political Party that Controls the Senate and House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_2	+/−	0.041***	0.088***	-0.011	0.017	-0.011
		(3.04)	(3.18)	(-0.47)	(0.90)	(-0.42)
NO_AFFILIATE_2	+/−	0.042***	0.074***	-0.017	0.017	-0.012
		(2.90)	(2.68)	(-0.77)	(0.98)	(-0.44)
ROA	+	0.323***	0.222***	-0.071***	0.283***	0.062***
		(26.99)	(15.18)	(-3.11)	(14.74)	(2.53)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.045***
		(10.88)	(12.20)	(3.08)	(-5.87)	(-10.53)
ΔNOL	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.85)	(0.63)
%FASSETS	+	0.008***	0.087***	0.006	-0.025***	0.026***
		(2.88)	(13.58)	(0.84)	(-3.64)	(3.56)
EQINC	?	-1.316***	2.091***	1.244***	-0.989*	-0.920
		(-5.71)	(4.63)	(2.78)	(-1.88)	(-1.55)
SIZE	?	-0.014***	0.045***	0.002	0.002	-0.000
		(-12.19)	(17.06)	(1.46)	(1.11)	(-0.05)
LEV	+	0.025***	-0.160***	0.017	-0.003	-0.073***
		(5.93)	(-13.09)	(1.30)	(-0.16)	(-4.49)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.01)	(2.66)	(0.17)	(-4.82)	(-4.00)
HHI	?	0.028**	-0.064*	0.068**	-0.053	0.070*
		(2.25)	(-1.70)	(1.97)	(-1.51)	(1.61)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.42)	(11.57)	(0.30)	(0.12)	(0.42)
CASH	−	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.96)	(4.17)	(5.95)	(-5.59)	(-7.87)
ΔGDWL	?	-0.016	0.040**	0.036	-0.010	0.038**
		(-1.00)	(2.08)	(1.53)	(-0.40)	(2.10)
NEW_INVEST	?	0.001	0.086***	0.067***	-0.060***	-0.029
		(0.10)	(5.66)	(3.75)	(-4.75)	(-1.40)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.48)	(-3.34)	(0.90)	(-0.71)	(-4.81)
INTANG	?	0.004**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(0.97)	(-3.38)	(1.99)	(-1.09)
INVMILLS	?	-0.020***	-0.037***	0.010	-0.012	0.005
		(-2.50)	(-2.43)	(0.73)	(-1.24)	(0.30)
INTERCEPT	?	0.030***	-0.039***	-0.369***	0.328***	0.348***
		(5.56)	(-2.55)	(-27.23)	(19.88)	(20.78)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.63%	51.99%	2.71%	9.55%	7.99%
Prob > F						
affiliate_2 = no_affiliate_2		0.751	**0.029**	0.163	0.984	0.885

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 5 (continued)

Panel C: Tax Avoidance and Political Directors' Affiliation with the Political Party the controls the Senate, House, and White House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_3	?	0.038***	0.087***	-0.013	0.020	-0.006
		(2.71)	(3.15)	(-0.57)	(1.08)	(-0.24)
NO_AFFILIATE_3	?	0.044***	0.074***	-0.015	0.015	-0.014
		(3.03)	(2.69)	(-0.70)	(0.89)	(-0.52)
ROA	+	0.323***	0.222***	-0.071***	0.283***	0.062***
		(27.01)	(15.17)	(-3.10)	(14.76)	(2.52)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.045***
		(10.88)	(12.18)	(3.08)	(-5.86)	(-10.51)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.85)	(0.63)
%FASSETS	+	0.008***	0.087***	0.006	-0.025***	0.026***
		(2.89)	(13.57)	(0.84)	(-3.65)	(3.56)
EQINC	?	-1.315***	2.097***	1.248***	-0.991*	-0.924
		(-5.71)	(4.65)	(2.79)	(-1.88)	(-1.56)
SIZE	?	-0.014***	0.045***	0.002	0.002	-0.000
		(-12.26)	(17.14)	(1.46)	(1.13)	(-0.04)
LEV	+	0.025***	-0.160***	0.017	-0.003	-0.073***
		(5.93)	(-13.07)	(1.31)	(-0.16)	(-4.50)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.02)	(2.66)	(0.17)	(-4.82)	(-4.00)
HHI	?	0.029**	-0.064*	0.068**	-0.054	0.070
		(2.27)	(-1.69)	(1.97)	(-1.52)	(1.60)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.41)	(11.56)	(0.30)	(0.12)	(0.42)
CASH	−	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.96)	(4.15)	(5.94)	(-5.58)	(-7.87)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.010	0.038**
		(-1.01)	(2.07)	(1.53)	(-0.40)	(2.11)
NEW_INVEST	?	0.001	0.086***	0.067***	-0.060***	-0.029
		(0.11)	(5.66)	(3.74)	(-4.75)	(-1.40)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.49)	(-3.33)	(0.90)	(-0.71)	(-4.80)
INTANG	?	0.004**	0.004	-0.044***	0.019**	-0.010
		(2.07)	(0.95)	(-3.38)	(1.99)	(-1.09)
INVMILLS	?	-0.020***	-0.036***	0.010	-0.012	0.005
		(-2.53)	(-2.36)	(0.73)	(-1.22)	(0.33)
INTERCEPT	?	0.030***	-0.036**	-0.369***	0.328***	0.348***
		(5.53)	(-2.09)	(-27.24)	(19.83)	(20.88)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.64%	51.98%	2.71%	9.55%	8.00%
Prob > F						
affiliate_3 = no_affiliate_3		**0.042**	**0.057**	0.654	0.447	0.193

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 6

Second-stage: Tax Avoidance and Political Directors' Government Experience

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
PCD	+/–	0.028	0.055*	-0.012	0.017	-0.032
		(1.60)	(1.84)	(-0.42)	(0.85)	(-1.13)
*PCD*GOVT_TENURE*	?	0.004**	0.007*	-0.001	-0.000	0.006
		(2.19)	(1.69)	(-0.25)	(-0.09)	(1.60)
ROA	+	0.323***	0.222***	-0.070***	0.283***	0.062***
		(26.77)	(15.16)	(-3.09)	(14.68)	(2.52)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(10.91)	(12.32)	(3.03)	(-5.89)	(-10.39)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.26)	(-0.49)	(-1.86)	(0.61)
%FASSETS	+	0.008***	0.087***	0.006	-0.025***	0.026***
		(2.86)	(13.45)	(0.84)	(-3.63)	(3.56)
EQINC	?	-1.328***	2.074***	1.250***	-0.984*	-0.931
		(-5.79)	(4.64)	(2.80)	(-1.87)	(-1.57)
SIZE	?	-0.014***	0.045***	0.002	0.002	0.000
		(-12.06)	(17.17)	(1.43)	(1.12)	(0.00)
LEV	+	0.025***	-0.160***	0.017	-0.003	-0.073***
		(6.07)	(-13.10)	(1.32)	(-0.15)	(-4.48)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.02)	(2.64)	(0.17)	(-4.84)	(-3.99)
HHI	?	0.028**	-0.064*	0.069**	-0.053	0.069
		(2.28)	(-1.70)	(1.98)	(-1.51)	(1.58)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.41)	(11.59)	(0.29)	(0.13)	(0.42)
CASH	–	0.014***	0.040***	0.064***	-0.070***	-0.080***
		(3.02)	(4.19)	(5.96)	(-5.59)	(-7.90)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-1.03)	(2.05)	(1.53)	(-0.41)	(2.07)
NEW_INVEST	?	0.001	0.086***	0.067***	-0.060***	-0.028
		(0.17)	(5.69)	(3.74)	(-4.75)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.43)	(-3.34)	(0.89)	(-0.71)	(-4.76)
INTANG	?	0.004**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(0.95)	(-3.39)	(1.99)	(-1.06)
INVMILLS	?	-0.017**	-0.033**	0.009	-0.012	0.008
		(-2.07)	(-2.17)	(0.65)	(-1.20)	(0.55)
INTERCEPT	?	0.031***	-0.038**	-0.369***	0.328***	0.348***
		(5.62)	(-2.31)	(-27.22)	(19.73)	(20.85)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.63%	51.98%	2.70%	9.54%	8.01%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Replication of Kim And Zhang (2016)

Below I report the results from replicating Kim and Zhang (2016), which examines the association between politically connected directors and firms' tax aggressiveness.[40]

Results from Selection Model

Table 7, Panel A reports the results from an expanded first-stage estimation of Equation (1).[41] My findings are mostly consistent with the authors' findings. First, the area under the ROC curve is 0.76, which is consistent with Kim and Zhang (2016). With regard to the determinants, profitability (*ROA*) (coef. = -0.487; *z* = -5.03), investment activity (*NEW_INVEST*) (coef. = -0.475; *z* = -4.17), cash holdings (*CASH*) (coef. = -0.281; *z* = -4.44), and growth opportunities (*MTB*) (coef. = -0.019; *z* = -4.32) are negatively and significantly associated with the likelihood that a firm appoints a politically connected individual to the board of directors. While firm size (*SIZE*) (coef. = 0.205; *z* = 15.21), debt (*LEV*) (coef. = 0.430; *z* = 3.77), number of business segments (*BUS_SEG*) (coef. = 0.077; *z* = 2.17), and the percentage of politically connected firms in a firm's industry group (*%POL_CONNECT*) (coef. = 2.841; *z* = 8.17) are positively and significantly associated with the likelihood that a firm appoints a politically connected individual to the board. Finally, I use the coefficient estimates from the first-stage regression to construct an inverse Mills ratio (*INVMILLS*), which I include as a control variable in the second-stage model.

Multivariate Results

Panel B reports results from estimating an expanded second-stage regression, Equation (2), which estimates the relation between politically connected directors and firms'

[40] Kim and Zhang (2016) examine this relationship over the period 1999 – 2009. I replicate their study over my sample period, 1999- 2014. I also replicate their study over their period 1999 – 2009, and find similar (unreported) results.

[41] As previously noted, Kim and Zhang (2016) use a battery of control variables. The additional variables included in the replication models are described in Appendix II.

tax avoidance activities. I examine this relationship with three aggressive tax measures: *DTAX*, *SHELTER*, and *TA_ETR*. Column (1) reports the results when *DTAX* is the dependent variable, column (2) reports the results when *SHELTER* serves as the dependent variable, and column (3) reports the results when *TA_ETR* is the dependent variable. Consistent with Kim and Zhang (2016), I find that the presence of politically connected directors is positively and significantly associated with *DTAX* (coef. = 0.047; *t* = 3.73) and *SHELTER* (coef. = 0.073; *t* = 2.64). However, I find a negative and insignificant association when *TA_ETR* serves as the proxy for aggressive tax avoidance (coef. = -0.019; *t* = -0.84). While this result is inconsistent with Kim and Zhang (2016), it is consistent with other studies. For example, Armstrong et al. (2015) examine the relationship between certain board characteristics and *TA_ETR*, and also find a negative and insignificant relationship.[42] Overall, the findings on the main effect variable (*PCD*) is mostly consistent with the findings in Kim and Zhang (2016), i.e., the presence of politically connected directors is related to higher leves of tax aggressiveness.

The coefficients on the control variables are generally consistent with the authors' findings. For example, firms that are profitable (*ROA*), report net operating loss carryforwards (*NOL*), report a higher percentage of foreign assets *(%FAssets*), have more cash holdings (*CASH*), and are larger (*SIZE*) are more tax aggressive. In aggregate, the results in Table 7 are consistent with Kim and Zhang (2016), and establish that political connections, facilitated by politically connected directors, is associated with aggressive tax avoidance.

[42] Armstrong et al. (2015) do not find an association between the financial expertise of the board and *TA_ETR* using an OLS regression model. They also use quantile regressions and examine the extreme tails of the tax avoidance distribution, and find an association within specified percentiles.

TABLE 7

Replication of Kim and Zhang (2016) over Sample Period 1999 - 2014

Probability of Appointing a Politically Connected Individual to the Board of Directors

Panel A: Results from Selection Equation

Variable[a]	Pred. Sign	Coefficents (*z*-statistic)[b, c]
INTERCEPT	?	-2.059***
		(-2.73)
ROA	?	-0.487***
		(-5.03)
STDROA	?	-0.112**
		(-1.91)
NOL	?	-0.002
		(-0.04)
ΔNOL	?	0.000
		(0.01)
%FASSETS	?	-0.026
		(-0.37)
$\Delta GDWL$	?	0.192
		(0.99)
NEW_INVEST	?	-0.475***
		(-4.17)
PP&E	?	-0.156
		(-1.41)
INTANG	?	0.021
		(0.33)
EQINC	?	5.135
		(1.07)
DACC	?	-0.902***
		(-3.51)
CASH	?	-0.281***
		(-4.44)
SIZE	+	0.205***
		(15.21)
LEV	+	0.430***
		(3.77)
MTB	?	-0.019***
		(-4.32)
BUS_SEG	+	0.077**
		(2.17)

TABLE 7, Panel A (continued)

GEO_SEG	+	-0.001
		(-0.17)
PCT_IO	?	0.003
		(0.05)
DUAL_CLASS	?	-0.079
		(-0.77)
HHI	+	-0.505
		(-1.08)
%POL_CONNECT	+	2.841***
		(8.17)
Industry Fixed Effects		Yes
Year Fixed Effects		Yes
Area Under ROC Curve		0.76
Observations		32,798

[a] Variables are defined in the Appendices.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm (Peterson 2009).

TABLE 7 (continued)

Associaton between Tax Avoidance and Political Connections for Politically Connected Firm-Years relative to Non-Politically Connected Firm-Years

Panel B: Results from Second-stage Equation (2)

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)
PCD	+	0.047***	0.073***	-0.019
		(3.73)	(2.64)	(-0.84)
ROA	+	0.319***	0.254***	-0.089***
		(25.16)	(17.19)	(-3.40)
STDROA	?	0.021***	0.004	0.002
		(6.55)	(1.14)	(0.07)
NOL	?	0.025***	0.053***	0.012***
		(11.38)	(12.60)	(3.15)
Δ*NOL*	?	0.014***	0.062***	-0.001
		(4.48)	(7.36)	(-0.45)
%FASSETS	+	0.009***	0.088***	0.005
		(2.94)	(13.27)	(0.75)
Δ*GDWL*	?	-0.009	0.018	0.030
		(-0.52)	(0.88)	(1.23)
NEW_INVEST	?	0.006	0.084***	0.065***
		(0.92)	(5.61)	(3.70)
PP&E	?	-0.007*	-0.038***	0.008
		(-1.69)	(-3.50)	(0.76)
INTANG	?	0.003	0.002	-0.042***
		(1.07)	(0.42)	(-3.13)
EQINC	?	-1.370***	1.977***	1.208***
		(-5.17)	(4.58)	(2.73)
DACC	+	-0.200***	0.334***	0.165***
		(-5.29)	(9.26)	(3.62)
CASH	–	0.021***	0.030***	0.059***
		(4.28)	(3.42)	(5.90)
SIZE	?	-0.014***	0.048***	0.004***
		(-12.30)	(15.65)	(2.45)
LEV	+	0.030***	-0.149***	0.015
		(5.49)	(-12.47)	(1.18)
MTB	?	0.001***	0.001	0.000
		(3.50)	(1.38)	(0.14)

TABLE 7, Panel B (continued)

BUS_SEG	+	0.002	0.005	0.001
		(1.56)	(1.42)	(0.25)
GEO_SEG	+	-0.005	0.037***	0.002
		(-2.37)	(11.17)	(0.57)
PCT_IO	?	-0.014***	-0.019***	-0.012***
		(-6.22)	(-3.00)	(-2.77)
DUAL_CLASS	–	0.007***	0.001	-0.003
		(2.63)	(0.10)	(-0.45)
HHI	?	0.016	-0.047	0.072**
		(1.29)	(-1.23)	(2.14)
INVMILLS	?	-0.022***	-0.034**	0.012
		(-3.22)	(-2.21)	(0.87)
Industry Fixed Effects		Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes
Observations		32,798	32,798	19,471
R^2		0.274	0.531	0.032

[a] Variables are defined in the Appendices.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

V. SENSITIVITY TESTS AND ADDITIONAL ANALYSIS

SENSITIVITY TESTS

Alternative political director measure

Any one given politician is unlikely to represent the ties and experience to all levels of government. Indeed, politically connected directors represent a different set of contacts and type of political experience, which suggests that no one political director is a perfect substitute for another. Accordingly, the effect multiple political directors have on firms' tax avoidance activities is unknown – do multiple political directors constrain or encourage firms' tax avoidance activities beyond their mere presence on the board? I investigate this question empirically and examine whether the results in Table 3, Panel B are robust to an alternative measure of political connections. I transform the binary variable (*PCD*) to a count variable (*LN_PCD_TOTAL*), which measures the natural log of the number of politically connected directors on the board. Table 8 presents the results from re-estimating Equation (2) when *LN_PCD_TOTAL* serves as the variable of interest. Consistent with the results in Table 3, Panel B, I find that the effect of political directors on firms' tax avoidance activities is positive and significant when *DTAX* and *SHELTER* serve as my proxies for tax avoidance (*p*-values < 0.01). Moreover, the R^2 reported in Table 3, Panel B increases marginally for both models, from 26.63% and 51.98% to 26.64% and 52.01%, respectively, which suggests that the count measure provides incremental explanatory value beyond the binary indicator.

TABLE 8

Tax Avoidance and the Number of Politically Connected Directors on the Board

Results from Second-stage Equation (2)

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
LN_PCD_TOTAL	+/–	0.026***	0.059***	-0.007	0.007	0.006
		(4.65)	(4.01)	(-0.64)	(0.75)	(0.31)
ROA	+	0.321***	0.220***	-0.070***	0.283***	0.064***
		(28.00)	(15.74)	(-3.07)	(14.71)	(2.64)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.07)	(12.25)	(3.05)	(-5.82)	(-10.44)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.49)	(-1.81)	(0.63)
%FASSETS	+	0.008***	0.087***	0.006	-0.025***	0.027***
		(2.80)	(13.27)	(0.87)	(-3.68)	(3.62)
EQINC	?	-1.313***	2.096***	1.245***	-0.983*	-0.934
		(-5.68)	(4.72)	(2.79)	(-1.86)	(-1.56)
SIZE	?	-0.013***	0.046***	0.002	0.003	-0.001
		(-14.93)	(19.35)	(1.49)	(1.40)	(-0.58)
LEV	+	0.028***	-0.156***	0.016	-0.001	-0.075***
		(6.16)	(-13.41)	(1.21)	(-0.08)	(-4.84)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(3.72)	(2.61)	(0.23)	(-4.87)	(-3.99)
HHI	?	0.030***	-0.062*	0.068**	-0.053	0.068
		(2.39)	(-1.63)	(1.99)	(-1.50)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.39)	(11.61)	(0.29)	(0.13)	(0.41)
CASH	–	0.014***	0.040***	0.064***	-0.070***	-0.080***
		(3.00)	(4.22)	(5.96)	(-5.59)	(-7.88)
Δ*GDWL*	?	-0.016	0.038**	0.036	-0.010	0.037**
		(-1.02)	(2.00)	(1.53)	(-0.40)	(2.08)
NEW_INVEST	?	0.001	0.086***	0.067***	-0.060***	-0.028
		(0.11)	(5.74)	(3.76)	(-4.77)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.46)	(-3.33)	(0.90)	(-0.71)	(-4.81)
INTANG	?	0.005**	0.005	-0.044***	0.019**	-0.010
		(2.08)	(0.99)	(-3.36)	(1.98)	(-1.06)
INVMILLS	?	-0.008***	-0.019***	0.005	-0.006	-0.005
		(-2.91)	(-2.98)	(0.77)	(-1.37)	(-0.53)
INTERCEPT	?	0.029***	-0.037**	-0.368***	0.327***	0.349***
		(5.66)	(-2.10)	(-28.20)	(19.68)	(21.79)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.64%	52.01%	2.70%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Continuous political director presence

A more rigorous test is to compare firms with continuous politically connected director presence to firms with no politically connected director during the sample period. Accordingly, I examine whether my results are robust to an alternative subset of sample firms that have continuous political director presence. Table 9 reports the results from re-estimating Equation (1), for sample firms with continuous politically connected director presence on the board relative to sample firms with no politically connected director on the board in any sample firm-year. Overall, the results for the covariates are generally consistent with those reported in Table 3, Panel A. For example, *SIZE* (coef. = 0.231; *z* = 9.77), *LEV* (coef. = 0.834; *z* = 4.88), and *%POL_CONNECT* (coef. = 2.343; *z* = 4.31) are positively and significantly associated with the likelihood of appointing a politically connected individual to the board. The area under the ROC curve is 0.77, which suggests that the selection model has acceptable discriminatory power in distinguishing between firms that appoint a politically connected individual and firms that do not appoint a politically connected individual to the board.

Panel B reports the results from re-estimating Equation (2), which are also consistent with those previously reported in Table 3, Panel B. Specifically, the coefficient on *PCD* is positive and significant when *DTAX* (coef. = 0.060; *t* = 2.65) and *SHELTER* (coef. = 0.116; *t* = 3.08) are the tax avoidance proxies. I also do not find a significant association between *PCD* and the other tax avoidance measures. Overall, the evidence is consistent with results previously reported, i.e., the presence of politically connected directors on board is associated with aggressive tax avoidance activities.

TABLE 9

Tax Avoidance and Continuous Presence of Politically Connected Directors on the Board

Probability of Appointing a Politically Connected Individual to the Board of Directors - ***continuous political director presence subsample***

Panel A: Results from Selection Equation

Variable[a]	Pred. Sign	Coefficents (*z*-statistic)[b, c]
INTERCEPT	?	-3.316***
		(-9.01)
ROA	?	-0.184
		(-1.09)
NOL	?	0.028
		(0.44)
%FASSETS	?	-0.230*
		(-1.85)
SIZE	+	0.231***
		(9.77)
LEV	+	0.834***
		(4.88)
MTB	?	-0.018***
		(-2.24)
PCT_IO	?	-0.101
		(-1.02)
%POL_CONNECT	+	2.343***
		(4.31)
Industry Fixed Effects		Yes
Year Fixed Effects		Yes
Area Under ROC Curve		0.77
Firm-Years		28,477

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm (Peterson 2009).

TABLE 9 (continued)

Panel B: Results from Second-stage Equation (2)

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
PCD	+/–	0.060***	0.116***	-0.007	-0.011	-0.059
		(2.65)	(3.08)	(-0.28)	(-0.38)	(-1.58)
ROA	+	0.324***	0.227***	-0.067***	0.255***	0.056**
		(25.68)	(17.43)	(-2.54)	(11.92)	(1.98)
NOL	?	0.028***	0.054***	0.015***	-0.025***	-0.049***
		(10.07)	(10.61)	(3.04)	(-6.18)	(-10.30)
Δ*NOL*	?	0.017***	0.067***	-0.005	-0.002	0.007**
		(4.86)	(8.60)	(-0.64)	(-1.53)	(2.02)
%FASSETS	+	0.008***	0.089***	-0.006	-0.017**	0.027***
		(2.10)	(12.00)	(-0.65)	(-2.13)	(3.21)
EQINC	?	-1.420***	1.417***	1.235**	-1.098*	-0.854
		(-5.19)	(2.81)	(2.27)	(-1.78)	(-1.30)
SIZE	?	-0.015***	0.042***	0.002	0.003	0.001
		(-12.62)	(16.88)	(1.12)	(1.30)	(0.63)
LEV	+	0.021***	-0.148***	0.016	0.001	-0.071***
		(4.19)	(-10.91)	(0.93)	(0.03)	(-3.34)
MTB	?	0.002***	0.002***	0.000	-0.004***	-0.004***
		(4.62)	(3.70)	(0.11)	(-3.87)	(-4.34)
HHI	?	0.021	-0.052	0.082**	-0.062	0.080*
		(1.43)	(-1.26)	(1.98)	(-1.46)	(1.71)
GEO_SEG	+	-0.005**	0.034***	0.007*	-0.002	0.001
		(-2.21)	(9.48)	(1.73)	(-0.51)	(0.16)
CASH	–	0.017***	0.043***	0.069***	-0.074***	-0.079***
		(3.77)	(4.66)	(6.84)	(-5.86)	(-7.63)
Δ*GDWL*	?	-0.031	0.025	0.031	0.000	0.025
		(-1.21)	(1.47)	(1.04)	(0.01)	(1.01)
NEW_INVEST	?	-0.007	0.084***	0.073***	-0.062***	-0.030
		(-0.70)	(5.51)	(3.81)	(-4.16)	(-1.40)
PP&E	?	-0.003	-0.032***	0.006	0.003	-0.063***
		(-0.63)	(-2.84)	(0.51)	(0.22)	(-3.91)
INTANG	?	0.011	0.011**	-0.040***	0.019*	-0.007
		(1.46)	(2.15)	(-2.66)	(1.61)	(-0.55)
INVMILLS	?	-0.027**	-0.044***	0.007	0.003	0.031
		(-2.31)	(-2.49)	(0.48)	(0.19)	(1.52)
INTERCEPT	?	0.026***	0.096***	-0.374***	0.334***	0.338***
		(4.34)	(6.05)	(-23.14)	(18.07)	(17.30)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.86%	49.45%	3.27%	9.28%	8.59%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Alternative high-profile measure

Previous analysis examines the effect of high-profile politically connected directors on tax avoidance. An underlying assumption from this analysis is that directors who serve in any high-profile position share equal reputational risk, or represent similar network connections to the government. Yet, politically connected directors who serve in more than one high-profile position likely face more reputational risk, which may significantly decrease their affect on tax avoidance. On the other hand, political directors who serve in more than one high-profile position likely have stronger political connections in government, and greater access to important legislators to help shield the firm from political costs associated with aggressive tax positions.

Previously reported results in Table 4 suggest, in part, that high-profile directors are associated with aggressive tax strategies. I re-estimate Equation (3) and examine whether the results are robust to an alternative measure of high-profile directors, i.e., directors who served in more than one high-profile position (*HIGHPROFILE_MORE*). The results are reported in Table 10. I find a positive and significant coefficient on *HIGHPROFILE_MORE* when *DTAX* (coef. = 0.008; t = 2.17) is the tax avoidance proxy, controlling for the presence of low-profile directors (*LOW_PROFILE*) and firm characteristics. However, I do not find a statistical difference between the coefficients on *HIGHPROFILE_MORE* and *LOW_PROFILE* across the tax avoidance measures (p-values > 0.10). The results suggest that political connections, facilitated by directors who served in more than high-profile position, have no incremental effect on firms' tax avoidance. In aggregate, the evidence from Tables 4 and 10 suggest that the political profile of a director, rather than the number of high-profile positions a director served in, influences firm's tax avoidance activities.

TABLE 10

Second-stage: Tax Avoidance and Political Directors' Service in Multiple High-Profile Positions

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
HIGHPROFILE_MORE	?	0.008**	0.015	-0.008	0.008	0.010
		(2.17)	(1.20)	(-0.86)	(0.80)	(0.94)
LOW_PROFILE	?	0.002	-0.004	-0.009	-0.003	0.001
		(0.50)	(-0.42)	(-1.42)	(-0.44)	(0.13)
ROA	+	0.320***	0.215***	-0.070***	0.282***	0.064***
		(27.92)	(15.51)	(-3.04)	(14.54)	(2.57)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.07)	(12.29)	(3.05)	(-5.82)	(-10.45)
ΔNOL	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.26)	(-0.49)	(-1.81)	(0.61)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.24)	(0.86)	(-3.67)	(3.62)
EQINC	?	-1.291***	2.148***	1.246***	-0.977*	-0.937
		(-5.57)	(4.70)	(2.80)	(-1.86)	(-1.58)
SIZE	?	-0.012***	0.049***	0.002	0.003*	-0.001
		(-16.32)	(23.22)	(1.58)	(1.77)	(-0.57)
LEV	+	0.030***	-0.151***	0.016	-0.001	-0.075***
		(6.69)	(-13.08)	(1.22)	(-0.05)	(-5.04)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.53)	(2.29)	(0.22)	(-4.97)	(-4.10)
HHI	?	0.032***	-0.053	0.068**	-0.052	0.068
		(2.62)	(-1.41)	(1.99)	(-1.46)	(1.57)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.40)	(11.50)	(0.28)	(0.12)	(0.40)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.96)	(4.13)	(5.97)	(-5.61)	(-7.86)
ΔGDWL	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-1.01)	(2.06)	(1.51)	(-0.39)	(2.03)
NEW_INVEST	?	0.001	0.085***	0.067***	-0.060***	-0.028
		(0.08)	(5.61)	(3.77)	(-4.80)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.008	-0.069***
		(-1.44)	(-3.36)	(0.90)	(-0.73)	(-4.81)
INTANG	?	0.005**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(1.00)	(-3.33)	(1.98)	(-1.05)
INVMILLS	?	0.002	0.007	0.005	-0.003	-0.003
		(1.10)	(1.47)	(1.46)	(-0.67)	(-0.85)
INTERCEPT	?	0.026***	-0.048***	-0.368***	0.326***	0.349***
		(5.22)	(-3.56)	(-28.42)	(19.69)	(22.00)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.58%	51.92%	2.71%	9.55%	7.99%
Prob > F						
highprofile_more = low_profile		0.150	0.117	0.947	0.167	0.398

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Analysis of each high-profile position

The main analysis reported in Table 4 examines the association between directors' political profile and tax avoidance. However, the analysis assumes a lack of variation in reputational risk, or political connection strength among the various high-profile positions. Therefore, I re-estimate Equation (3) for each high-profile position, and conduct a joint test of significance between the coefficients on the high-profile positions. The results are reported in Table 11. First, I examine the relation between a high-profile director who served as a cabinet secretary (*CAB_SEC*) and firms' tax avoidance activities. The results are presented in Panel A. I find a positive and significant coefficient on *CAB_SEC* when *SHELTER* is the measure of tax avoidance (p-value < 0.05). Next, I examine the association between political directors who served as representatives of the house (*REP*) and tax avoidance. The findings reported in Panel B show a positive and significant coefficient when *TA_ETR* (coef. = 0.011; t = 1.70) is the tax avoidance proxy. Then, I examine whether the political connections of a senator (*SENATOR*) are associated with a firm's tax avoidance. The results are reported in Panel C. I find a positive and significant association between *SENATOR* and *DTAX* (p-value < 0.01), which suggests that a political director who once served as a U.S. senator is associated with aggressive tax avoidance.

I also find a positive and significant coefficient on *SENATOR* when *ETR* serves as the tax avoidance proxy (p-value < 0.10), which suggest that political directors who were former senators are associated with lower levels of tax avoidance. This finding appears to conflict with previously reported results. However, one possible explanation for the inconsistency is that former senators likely channel their influence to more complex tax strategies to shield the firm from political costs, rather than spend political capital on less aggressive tax

strategies. The last high-profile position I examine is state governors (*GOV*). The estimates reported in Panel D provide evidence of a relation between politically connected directors who once served as a state governor (*GOV*) and tax aggressiveness (*DTAX*) (coef. = 0.011; *t* = 2.60).

Next, I triangulate the results discussed above to determine whether a particular high-profile position has a greater effect on firms' tax avoidance, relative to the other high-profile positions. The estimates reported in Panel E provide evidence of a relation between *TAXAVOID* and the various *HIGH_PROFILE* positions. Specifically, the coefficient on *SENATOR* is 0.007 (*t* = 1.86) when *TAXAVOID* is measured with *DTAX*. However, the joint test of significance show that the coefficient is not statistically different from the coefficients on the other high-profile positions (*p*-values > 0.10). In column (2), I find a positive and significant association between *CAB_SEC* and *SHELTER* (coef. = 0.027; *t* = 2.34), which is statistically more positive than the coefficients on *REP* (*p*-value < 0.10), and *GOV* (*p*-value < 0.05). I also find that senators (*SENATOR*) are associated with higher levels of tax aggressiveness relative to governors (*GOV*) (*p*-value < 0.10). When *TAXAVOID* is measured with *TA_ETR*, I find a positive and significant coefficient on *REP* (coef. = 0.015; *t* = 2.06), which is statistically more positive than the coefficients on *CAB_SEC* (*p*-value < 0.10) and *SENATOR* (*p*-value < 0.05). I do not find a statistical difference between the coefficients on the various high-profile positions and less aggressive tax avoidance measures, *ETR* and *CETR*. Overall, the evidence supports previous findings of a relation between high-profile directors and more extreme forms of tax avoidance. However, the evidence also suggests that the level of tax aggressiveness varies among the different political profile types.

TABLE 11

Tax Avoidance and Political Directors' Political Profile

Panel A: Tax Avoidance and Cabinet Secretary Political Profile

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
CAB_SEC	?	0.006	0.026**	-0.002	0.004	0.007
		(1.19)	(2.24)	(-0.28)	(0.42)	(0.65)
ROA	+	0.319***	0.215***	-0.069***	0.282***	0.063***
		(28.38)	(15.49)	(-3.03)	(14.66)	(2.56)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.03)	(12.22)	(3.07)	(-5.82)	(-10.46)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.49)	(-1.79)	(0.63)
%FASSETS	+	0.007***	0.086***	0.006	-0.025***	0.026***
		(2.70)	(13.15)	(0.89)	(-3.69)	(3.61)
EQINC	?	-1.289***	2.145***	1.241***	-0.981*	-0.935
		(-5.53)	(4.73)	(2.79)	(-1.86)	(-1.58)
SIZE	?	-0.012***	0.048***	0.001	0.003*	-0.001
		(-16.90)	(21.90)	(1.28)	(1.73)	(-0.55)
LEV	+	0.030***	-0.151***	0.015	-0.001	-0.075***
		(6.63)	(-13.21)	(1.17)	(-0.05)	(-5.06)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.48)	(2.31)	(0.26)	(-4.94)	(-4.12)
HHI	?	0.033***	-0.052	0.067**	-0.051	0.069
		(2.62)	(-1.37)	(1.96)	(-1.46)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.39)	(11.52)	(0.29)	(0.13)	(0.41)
CASH	–	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.95)	(4.12)	(5.96)	(-5.60)	(-7.83)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-1.00)	(2.06)	(1.51)	(-0.39)	(2.05)
NEW_INVEST	?	0.000	0.085***	0.068***	-0.060***	-0.028
		(0.03)	(5.63)	(3.79)	(-4.78)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.42)	(-3.29)	(0.89)	(-0.70)	(-4.81)
INTANG	?	0.005**	0.005	-0.044***	0.019**	-0.010
		(2.06)	(1.00)	(-3.35)	(1.97)	(-1.05)
INVMILLS	?	0.003***	0.004*	0.002	-0.003	-0.003
		(2.65)	(1.78)	(0.67)	(-1.58)	(-1.01)
INTERCEPT	?	0.026***	-0.050***	-0.367***	0.326***	0.349***
		(5.20)	(-3.66)	(-28.66)	(19.80)	(22.08)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.60%	51.95%	2.70%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 11 (continued)

Panel B: Tax Avoidance and House Representative Political Profile

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
REP	?	0.002	0.006	0.011*	0.007	0.004
		(0.55)	(0.60)	(1.70)	(0.80)	(0.42)
ROA	+	0.319***	0.215***	-0.069***	0.282***	0.063***
		(28.38)	(15.47)	(-3.02)	(14.69)	(2.56)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.07)	(12.26)	(3.07)	(-5.83)	(-10.46)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.80)	(0.63)
%FASSETS	+	0.007***	0.086***	0.006	-0.025***	0.027***
		(2.71)	(13.18)	(0.88)	(-3.67)	(3.62)
EQINC	?	-1.284***	2.164***	1.242***	-0.974*	-0.927
		(-5.49)	(4.72)	(2.79)	(-1.85)	(-1.56)
SIZE	?	-0.012***	0.049***	0.001	0.003*	-0.001
		(-16.84)	(22.21)	(1.18)	(1.74)	(-0.52)
LEV	+	0.030***	-0.150***	0.015	-0.001	-0.075***
		(6.66)	(-13.19)	(1.13)	(-0.06)	(-5.04)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.46)	(2.28)	(0.29)	(-4.94)	(-4.12)
HHI	?	0.032***	-0.053	0.066**	-0.052	0.069
		(2.60)	(-1.38)	(1.95)	(-1.47)	(1.58)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.38)	(11.53)	(0.29)	(0.14)	(0.41)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.94)	(4.11)	(5.96)	(-5.61)	(-7.87)
Δ*GDWL*	?	-0.016	0.039**	0.035	-0.009	0.037**
		(-0.99)	(2.06)	(1.48)	(-0.38)	(2.06)
NEW_INVEST	?	0.000	0.085***	0.068***	-0.060***	-0.028
		(0.03)	(5.62)	(3.78)	(-4.79)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.008	-0.069***
		(-1.44)	(-3.36)	(0.88)	(-0.72)	(-4.81)
INTANG	?	0.005**	0.004	-0.043***	0.019**	-0.010
		(2.06)	(0.99)	(-3.32)	(1.96)	(-1.06)
INVMILLS	?	0.003***	0.006**	0.000	-0.004	-0.002
		(3.09)	(2.18)	(0.04)	(-1.61)	(-0.89)
INTERCEPT	?	0.026***	-0.046***	-0.367***	0.327***	0.349***
		(5.21)	(-2.98)	(-28.51)	(19.84)	(22.13)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.59%	51.93%	2.72%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 11 (continued)

Panel C: Tax Avoidance and Senator Political Profile

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
SENATOR	?	0.008***	0.019	-0.007	0.015*	0.009
		(2.71)	(1.46)	(-0.77)	(1.67)	(0.76)
ROA	+	0.320***	0.216***	-0.069***	0.282***	0.063***
		(28.37)	(15.52)	(-3.05)	(14.68)	(2.56)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.08)	(12.26)	(3.08)	(-5.83)	(-10.46)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.80)	(0.64)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.74)	(13.15)	(0.88)	(-3.65)	(3.63)
EQINC	?	-1.292***	2.145***	1.244***	-0.989*	-0.935
		(-5.53)	(4.69)	(2.80)	(-1.88)	(-1.58)
SIZE	?	-0.012***	0.049***	0.001	0.003*	-0.001
		(-17.01)	(22.21)	(1.35)	(1.69)	(-0.55)
LEV	+	0.030***	-0.151***	0.016	-0.001	-0.075***
		(6.66)	(-13.17)	(1.17)	(-0.07)	(-5.03)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.48)	(2.31)	(0.24)	(-4.93)	(-4.10)
HHI	?	0.032***	-0.054	0.067**	-0.053	0.068
		(2.55)	(-1.43)	(1.99)	(-1.52)	(1.57)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.40)	(11.45)	(0.31)	(0.10)	(0.40)
CASH	–	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.95)	(4.12)	(5.97)	(-5.60)	(-7.85)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-0.99)	(2.07)	(1.51)	(-0.39)	(2.06)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.04)	(5.63)	(3.77)	(-4.78)	(-1.38)
PP&E	?	-0.007	-0.036***	0.011	-0.008	-0.069***
		(-1.45)	(-3.38)	(0.90)	(-0.73)	(-4.82)
INTANG	?	0.005**	0.004	-0.044***	0.019**	-0.010
		(2.07)	(1.00)	(-3.34)	(1.96)	(-1.06)
INVMILLS	?	0.003***	0.005**	0.002	-0.004**	-0.003
		(3.13)	(2.07)	(0.76)	(-1.97)	(-1.04)
INTERCEPT	?	0.027***	-0.048***	-0.367***	0.327***	0.349***
		(5.26)	(-3.34)	(-28.40)	(19.95)	(22.19)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.60%	51.94%	2.71%	9.56%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 11 (continued)

Panel D: Tax Avoidance and Governor Political Profile

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
GOV	?	0.011***	0.001	0.000	0.002	-0.004
		(2.60)	(0.05)	(0.01)	(0.15)	(-0.26)
ROA	+	0.319***	0.215***	-0.069***	0.282***	0.063***
		(28.30)	(15.48)	(-3.04)	(14.66)	(2.55)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.02)	(12.27)	(3.06)	(-5.84)	(-10.43)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.49)	(-1.79)	(0.63)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.026***
		(2.75)	(13.14)	(0.89)	(-3.67)	(3.61)
EQINC	?	-1.289***	2.163***	1.238***	-0.977*	-0.927
		(-5.52)	(4.72)	(2.79)	(-1.86)	(-1.56)
SIZE	?	-0.012***	0.049***	0.001	0.003*	-0.001
		(-16.86)	(22.27)	(1.27)	(1.77)	(-0.49)
LEV	+	0.030***	-0.150***	0.015	-0.001	-0.075***
		(6.71)	(-13.11)	(1.16)	(-0.05)	(-5.03)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.48)	(2.28)	(0.26)	(-4.94)	(-4.14)
HHI	?	0.032***	-0.053	0.067**	-0.052	0.069
		(2.60)	(-1.38)	(1.96)	(-1.47)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.41)	(11.50)	(0.29)	(0.13)	(0.41)
CASH	–	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.94)	(4.11)	(5.97)	(-5.61)	(-7.87)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-1.00)	(2.06)	(1.50)	(-0.38)	(2.06)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.03)	(5.62)	(3.78)	(-4.78)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.43)	(-3.35)	(0.90)	(-0.71)	(-4.81)
INTANG	?	0.005**	0.004	-0.044***	0.018**	-0.010
		(2.06)	(0.99)	(-3.34)	(1.96)	(-1.07)
INVMILLS	?	0.003***	0.006***	0.001	-0.003	-0.002
		(3.42)	(2.57)	(0.58)	(-1.45)	(-0.75)
INTERCEPT	?	0.027***	-0.045***	-0.367***	0.326***	0.349***
		(5.29)	(-3.89)	(-28.47)	(19.95)	(22.02)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.60%	51.93%	2.70%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 11 (continued)

Panel E: Tax Avoidance and Political Directors' Political Profile

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
CAB_SEC	?	0.005	0.027***	-0.002	0.005	0.008
		(0.97)	(2.34)	(-0.18)	(0.48)	(0.76)
SENTOR	?	0.007*	0.020	-0.014	0.015	0.010
		(1.86)	(1.55)	(-1.45)	(1.60)	(0.78)
REP	?	-0.001	0.001	0.015**	0.003	0.002
		(-0.30)	(0.12)	(2.06)	(0.30)	(0.19)
GOV	?	0.008	-0.012	0.002	-0.005	-0.009
		(1.52)	(-0.82)	(0.15)	(-0.45)	(-0.65)
ROA	+	0.320***	0.216***	-0.069***	0.282***	0.063***
		(28.38)	(15.53)	(-3.03)	(14.69)	(2.57)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(10.99)	(12.24)	(3.11)	(-5.83)	(-10.41)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.50)	(-1.80)	(0.63)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.73)	(13.06)	(0.86)	(-3.66)	(3.60)
EQINC	?	-1.298***	2.131***	1.257***	-0.992*	-0.941
		(-5.56)	(4.70)	(2.81)	(-1.88)	(-1.59)
SIZE	?	-0.012***	0.048***	0.001	0.003*	-0.001
		(-17.08)	(21.71)	(1.30)	(1.66)	(-0.61)
LEV	+	0.030***	-0.151***	0.015	-0.001	-0.075***
		(6.65)	(-13.21)	(1.14)	(-0.07)	(-5.07)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.49)	(2.33)	(0.26)	(-4.92)	(-4.09)
HHI	?	0.032***	-0.053	0.067**	-0.053	0.069
		(2.56)	(-1.41)	(1.99)	(-1.50)	(1.58)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.41)	(11.45)	(0.33)	(0.11)	(0.40)
CASH	–	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.97)	(4.14)	(5.96)	(-5.60)	(-7.82)
Δ*GDWL*	?	-0.016	0.040**	0.035	-0.010	0.037**
		(-0.99)	(2.09)	(1.49)	(-0.39)	(2.05)
NEW_INVEST	?	0.000	0.085***	0.068***	-0.060***	-0.028
		(0.03)	(5.64)	(3.78)	(-4.78)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.008	-0.069***
		(-1.43)	(-3.32)	(0.89)	(-0.73)	(-4.83)
INTANG	?	0.005**	0.005	-0.044***	0.019**	-0.010
		(2.07)	(1.01)	(-3.33)	(1.98)	(-1.04)
INVMILLS	?	0.002***	0.003	0.001	-0.005*	-0.003
		(2.02)	(1.26)	(0.25)	(-1.85)	(-1.08)
INTERCEPT	?	0.027***	-0.052***	-0.367***	0.327***	0.349***
		(5.34)	(-4.80)	(-28.37)	(20.06)	(22.11)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.60%	51.96%	2.74%	9.56%	8.00%
Prob > F						
cab_sec = senator		0.816	0.686	0.386	0.435	0.863
cab_sec = rep		0.246	**0.099**	**0.098**	0.876	0.706
cab_sec = governor		0.774	**0.036**	0.827	0.499	0.269
senator = rep		0.187	0.289	**0.044**	0.406	0.686
senator = gov		0.895	**0.099**	0.187	0.147	0.288
rep = gov		0.195	0.505	0.360	0.589	0.558

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Exclusion of firm-years with political directors from different party affiliations

Political directors from different party affiliations potentially serve simultaneously on the board in any given firm-year during the sample period. Indeed, the mean for *DUAL_AFFILIATE* reported in Table 1, Panel A, is 0.012; or said another way, approximately 446 firm-years include political directors from different political party affiliations who serve simultaneously on the board. While the subsample of firm-years with political directors from different party affiliations is relatively small, I exclude those firm-years to mitigate misleading interpretations. I re-estimate Equation (4) and examine whether my results are robust to excluding firm-years with political directors from different party affiliations. The results in Table 12 are partly consistent with those reported in Table 5. For example, I find a positive and significant relation between *AFFLIATE_1* and *SHELTER* (*p*-value = 0.01). However, the joint test of significance of the coefficients on *AFFILIATE_1* and *NO_AFFILIATE_1* is not significant (*p*-value > 0.10). Also, I do not find a statistical difference between *AFFILIATE_2* and *NO_AFFILATE_2* across all tax proxies (*p*-values > 0.10), reported in Panel B. Lastly, I find a statistical difference between the coefficients on *AFFILIATE_3* and *NO_AFFILIATE_3* when *DTAX* and *CETR* are the tax avoidance measures (*p*-values < 0.05). However, the magnitude of the coefficients on *AFFLIATE_3* are smaller than the magnitude of the coefficients on *NO_AFFILIATE_3*. In aggregate, the evidence from Table 5 and 12 suggests that political connections, rather than a political directors' affiliation with the political party in power, appear to be more influential for firms' aggressive tax strategies.

TABLE 12

Second-stage: Political Directors' Political Party Affiliation and Tax Avoidance Activities - ***Firm-years with more than one political director from different party affliations are excluded***

Panel A: Tax Avoidance and Political Directors' Affiliation with the Political Party that Controls the Senate, House, or White House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_1	?	0.267***	0.072***	-0.017	0.012	-0.020
		(2.92)	(2.58)	(-0.72)	(0.63)	(-0.74)
NO_AFFILIATE_1	?	0.041***	0.065**	-0.016	0.014	-0.022
		(2.84)	(2.33)	(-0.72)	(0.79)	(-0.79)
ROA	+	0.323***	0.220***	-0.072***	0.283***	0.061***
		(26.66)	(15.14)	(-3.11)	(14.62)	(2.56)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.046***
		(10.84)	(12.12)	(3.09)	(-5.93)	(-10.62)
Δ*NOL*	?	0.016***	0.061***	-0.001	-0.002**	0.002
		(4.74)	(7.31)	(-0.42)	(-2.05)	(0.62)
%FASSETS	+	0.008***	0.087***	0.005	-0.023***	0.026***
		(2.74)	(13.39)	(0.71)	(-3.34)	(3.59)
EQINC	?	-1.344***	2.079***	1.267***	-0.990*	-1.011*
		(-5.50)	(4.61)	(2.73)	(-1.85)	(-1.70)
SIZE	?	-0.014***	0.045***	0.002	0.002	0.000
		(-12.28)	(17.16)	(1.43)	(1.17)	(0.08)
LEV	+	0.024***	-0.157***	0.015	-0.003	-0.072***
		(5.78)	(-12.39)	(1.19)	(-0.18)	(-4.55)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.05)	(2.71)	(0.23)	(-4.69)	(-3.92)
HHI	?	0.031***	-0.071*	0.077**	-0.065*	0.055
		(2.45)	(-1.88)	(2.17)	(-1.85)	(1.26)
GEO_SEG	+	-0.005**	0.037***	0.002	-0.000	0.002
		(-2.21)	(11.48)	(0.44)	(-0.01)	(0.38)
CASH	–	0.014***	0.040***	0.064***	-0.070***	-0.080***
		(2.68)	(4.21)	(5.92)	(-5.56)	(-7.91)
Δ*GDWL*	?	-0.018	0.040**	0.032	-0.006	0.037**
		(-1.08)	(2.14)	(1.38)	(-0.23)	(2.10)
NEW_INVEST	?	0.003	0.086***	0.070***	-0.063***	-0.031
		(0.39)	(5.67)	(3.89)	(-5.06)	(-1.50)
PP&E	?	-0.007	-0.035***	0.009	-0.006	-0.066***
		(-1.51)	(-3.12)	(0.76)	(-0.54)	(-4.49)
INTANG	?	0.005**	0.005	-0.043***	0.019**	-0.009
		(2.09)	(0.96)	(-3.32)	(2.01)	(-0.93)
INVMILLS	?	-0.021***	-0.033**	0.010	-0.010	0.010
		(-2.54)	(-2.12)	(0.76)	(-0.99)	(0.63)
INTERCEPT	?	0.029***	-0.035**	-0.370***	0.330***	0.350***
		(5.48)	(-2.26)	(-27.39)	(20.37)	(20.50)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.67%	51.59%	2.72%	9.62%	8.13%
Prob > F						
affiliate_1 = no_affiliate_1		0.272	0.199	0.986	0.834	0.691

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 12 (continued)

Panel B: Tax Avoidance and Political Directors' Affiliation with the Political Party that Controls the Senate and House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_2	?	0.040***	0.069***	-0.011	0.013	-0.019
		(2.68)	(2.48)	(-0.47)	(0.64)	(-0.69)
NO_AFFILIATE_2	?	0.042***	0.064**	-0.018	0.013	-0.023
		(2.88)	(2.30)	(-0.81)	(0.79)	(-0.81)
ROA	+	0.323***	0.220***	-0.072***	0.283***	0.061***
		(26.65)	(15.15)	(-3.12)	(14.69)	(2.55)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.046***
		(10.82)	(12.12)	(3.09)	(-5.93)	(-10.62)
Δ*NOL*	?	0.016***	0.061***	-0.001	-0.002**	0.002
		(4.73)	(7.30)	(-0.43)	(-2.05)	(0.62)
%FASSETS	+	0.008***	0.087***	0.005	-0.023***	0.026***
		(2.75)	(13.37)	(0.70)	(-3.34)	(3.58)
EQINC	?	-1.342***	2.080***	1.264***	-0.990*	-1.014*
		(-5.47)	(4.61)	(2.72)	(-1.85)	(-1.71)
SIZE	?	-0.014***	0.045***	0.002	0.002	0.000
		(-12.25)	(17.21)	(1.45)	(1.16)	(0.09)
LEV	+	0.025***	-0.156***	0.015	-0.003	-0.072***
		(5.90)	(-12.36)	(1.16)	(-0.19)	(-4.58)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.02)	(2.70)	(0.24)	(-4.69)	(-3.92)
HHI	?	0.031**	-0.071*	0.077**	-0.065*	0.054
		(2.48)	(-1.87)	(2.17)	(-1.85)	(1.26)
GEO_SEG	+	-0.005***	0.037***	0.002	-0.000	0.002
		(-2.20)	(11.48)	(0.44)	(-0.01)	(0.39)
CASH	–	0.014***	0.040***	0.064***	-0.070***	-0.080***
		(2.68)	(4.21)	(5.94)	(-5.56)	(-7.91)
Δ*GDWL*	?	-0.018	0.040**	0.033	-0.006	0.038**
		(-1.09)	(2.12)	(1.40)	(-0.23)	(2.11)
NEW_INVEST	?	0.003	0.086***	0.070***	-0.063***	-0.031
		(0.40)	(5.67)	(3.89)	(-5.07)	(-1.50)
PP&E	?	-0.007	-0.035***	0.009	-0.006	-0.066***
		(-1.51)	(-3.12)	(0.76)	(-0.54)	(-4.49)
INTANG	?	0.005**	0.005	-0.043***	0.019**	-0.009
		(2.09)	(0.98)	(-3.31)	(2.01)	(-0.93)
INVMILLS	?	-0.020***	-0.031**	0.010	-0.011	0.010
		(-2.48)	(-2.02)	(0.74)	(-1.05)	(0.64)
INTERCEPT	?	0.030***	-0.035***	-0.370***	0.330***	0.350***
		(5.47)	(-2.41)	(-27.30)	(20.46)	(20.63)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.67%	51.59%	2.73%	9.62%	8.13%
Prob > F						
affiliate_2 = no_affiliate_2		0.384	0.387	0.144	0.901	0.467

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 12 (continued)

Panel C: Tax Avoidance and Political Directors Affiliation with the Political Party the controls the Senate, House, and White House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_3	?	0.037***	0.068***	-0.013	0.018	-0.013
		(2.44)	(2.48)	(-0.55)	(0.90)	(-0.47)
NO_AFFILIATE_3	?	0.043***	0.065**	-0.017	0.012	-0.024
		(2.94)	(2.30)	(-0.77)	(0.71)	(-0.86)
ROA	+	0.323***	0.220***	-0.072***	0.283***	0.061***
		(26.66)	(15.17)	(-3.11)	(14.70)	(2.54)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.046***
		(10.82)	(12.12)	(3.09)	(-5.92)	(-10.60)
Δ*NOL*	?	0.016***	0.061***	-0.001	-0.002**	0.002
		(4.73)	(7.30)	(-0.42)	(-2.05)	(0.62)
%FASSETS	+	0.008***	0.087***	0.005	-0.023***	0.026***
		(2.75)	(13.37)	(0.70)	(-3.35)	(3.57)
EQINC	?	-1.342***	2.082***	1.266***	-0.992*	-1.016*
		(-5.47)	(4.62)	(2.72)	(-1.85)	(-1.71)
SIZE	?	-0.014***	0.045***	0.002	0.002	0.000
		(-12.34)	(17.26)	(1.45)	(1.17)	(0.10)
LEV	+	0.025***	-0.156***	0.015	-0.004	-0.072***
		(5.91)	(-12.33)	(1.18)	(-0.19)	(-4.57)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.02)	(2.69)	(0.24)	(-4.68)	(-3.91)
HHI	?	0.031**	-0.071*	0.077**	-0.065*	0.054
		(2.49)	(-1.87)	(2.17)	(-1.86)	(1.25)
GEO_SEG	+	-0.005**	0.037***	0.002	-0.000	0.002
		(-2.19)	(11.48)	(0.43)	(-0.01)	(0.38)
CASH	−	0.014***	0.040***	0.064***	-0.070***	-0.080***
		(2.69)	(4.20)	(5.93)	(-5.55)	(-7.92)
Δ*GDWL*	?	-0.018	0.039**	0.032	-0.006	0.038**
		(-1.10)	(2.12)	(1.39)	(-0.22)	(2.13)
NEW_INVEST	?	0.003	0.086***	0.070***	-0.063***	-0.031
		(0.40)	(5.67)	(3.89)	(-5.06)	(-1.50)
PP&E	?	-0.007	-0.035***	0.009	-0.006	-0.066***
		(-1.51)	(-3.12)	(0.76)	(-0.53)	(-4.49)
INTANG	?	0.005**	0.005	-0.043***	0.019**	-0.009
		(2.10)	(0.97)	(-3.32)	(2.00)	(-0.94)
INVMILLS	?	-0.020***	-0.031**	0.011	-0.011	0.010
		(-2.51)	(-2.00)	(0.76)	(-1.06)	(0.65)
INTERCEPT	?	0.029***	-0.034**	-0.370***	0.330***	0.350***
		(5.45)	(-2.07)	(-27.34)	(20.41)	(20.66)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.67%	51.59%	2.73%	9.63%	8.14%
Prob > F						
affiliate_3 = no_affiliate_3		**0.046**	0.529	0.479	0.428	**0.022**

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Analysis of political directors' party affiliation to each branch of government

In this analysis, I examine political directors' affiliation to the branch of government in power on a more granular level, and report the results in Table 13. First, I examine whether a political director's affiliation to the political party that controls Congress (*AFFILIATE_CONGRESS*) matters for firms' tax avoidance activities, and present the results in Panel A.[43] I find a positive and significant association between *AFFILIATE_CONRESS* and *SHELTER* (p-value < 0.01). Next, I examine whether a political director's affiliation with the political party that controls the white house (*AFFILIATE_WHOUSE*) affects firms' tax avoidance strategies. The estimates reported in Panel B also show a positive and significant relation between *AFFILIATE_WHOUSE* and *SHELTER* (p-value < 0.05). Therefore, I complete the analysis and perform a joint test of significance between the coefficients on *AFFILIATE_CONGRESS* and *AFFILIATE_WHOUSE* across all my proxies for tax avoidance. The results are reported in Panel C. I find that the coefficients are statistically different when *TA_ETR* is the tax avoidance proxy (p-value < 0.01). I do not find a statistical difference between both coefficients when the other tax measures serve as my proxies for tax avoidance (p-values > 0.10). Nonetheless, the results suggest political directors affiliated with the political party that controls Congress are more tax aggressive relative to political directors affiliated with the political party that controls the white house.

[43] The means reported in Table 1, Panel A, show a lack of variation in firm-years when either political party controlled the senate (*AFFILIATE_SENATE*) or house (*AFFILIATE_HOUSE*) (0.054). Therefore, I group firm-years and construct variable *AFFILIATE_CONGRESS*, which measures political directors' affiliation with either the senate or house.

TABLE 13

Second-stage: Tax Avoidance and Political Directors' Affiliation with the Branch of Government in Power

Panel A: Political Directors' Affiliation with the Political Party that Controls the Congress

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_CONGRESS	?	0.001	0.017***	0.005	0.001	0.000
		(0.23)	(2.71)	(1.12)	(0.14)	(0.05)
ROA	+	0.319***	0.215***	-0.069***	0.282***	0.063***
		(28.37)	(15.42)	(-3.03)	(14.66)	(2.55)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.07)	(12.27)	(3.06)	(-5.83)	(-10.46)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.80)	(0.63)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.22)	(0.89)	(-3.68)	(3.62)
EQINC	?	-1.285***	2.148***	1.233***	-0.977*	-0.928
		(-5.48)	(4.69)	(2.77)	(-1.86)	(-1.57)
SIZE	?	-0.012***	0.048***	0.001	0.003*	-0.001
		(-16.83)	(21.89)	(1.18)	(1.76)	(-0.50)
LEV	+	0.030***	-0.151***	0.015	-0.001	-0.075***
		(6.70)	(-13.33)	(1.13)	(-0.05)	(-5.01)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.47)	(2.32)	(0.28)	(-4.95)	(-4.13)
HHI	?	0.032**	-0.054	0.066**	-0.052	0.069
		(2.61)	(-1.43)	(1.94)	(-1.47)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.39)	(11.52)	(0.28)	(0.14)	(0.41)
CASH	–	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.94)	(4.13)	(5.97)	(-5.60)	(-7.86)
Δ*GDWL*	?	-0.016	0.040**	0.036	-0.009	0.037**
		(-1.00)	(2.10)	(1.51)	(-0.38)	(2.06)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.03)	(5.60)	(3.79)	(-4.79)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.43)	(-3.33)	(0.90)	(-0.71)	(-4.81)
INTANG	?	0.005**	0.005	-0.044***	0.018**	-0.010
		(2.06)	(1.01)	(-3.34)	(1.96)	(-1.06)
INVMILLS	?	0.003***	0.003	0.000	-0.003	-0.002
		(2.50)	(1.23)	(0.18)	(-1.39)	(-0.76)
INTERCEPT	?	0.026***	-0.047***	-0.367***	0.326***	0.349***
		(5.18)	(-2.94)	(-28.62)	(19.88)	(22.22)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.59%	51.94%	2.71%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 13 (continued)

Panel B: Political Directors' Affiliation with the Political Party that Controls the White House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_WHOUSE	?	0.002	0.013**	-0.005	0.004	0.005
		(0.45)	(2.00)	(-1.13)	(0.66)	(0.92)
ROA	+	0.319***	0.216***	-0.069***	0.282***	0.063***
		(28.41)	(15.47)	(-3.04)	(14.64)	(2.56)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.06)	(12.25)	(3.06)	(-5.82)	(-10.45)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.50)	(-1.79)	(0.64)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.18)	(0.88)	(-3.67)	(3.63)
EQINC	?	-1.285***	2.158***	1.241***	-0.977*	-0.929
		(-5.51)	(4.72)	(2.79)	(-1.86)	(-1.57)
SIZE	?	-0.012***	0.048***	0.001	0.003*	-0.001
		(-17.11)	(21.98)	(1.37)	(1.66)	(-0.57)
LEV	+	0.030***	-0.151***	0.016	-0.001	-0.075***
		(6.62)	(-13.24)	(1.19)	(-0.06)	(-5.00)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.49)	(2.30)	(0.24)	(-4.92)	(-4.10)
HHI	?	0.032**	-0.054	0.067**	-0.052	0.069
		(2.60)	(-1.42)	(1.98)	(-1.48)	(1.58)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.39)	(11.50)	(0.29)	(0.13)	(0.41)
CASH	–	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.94)	(4.10)	(5.97)	(-5.60)	(-7.86)
Δ*GDWL*	?	-0.016	0.040**	0.036	-0.009	0.037**
		(-0.99)	(2.11)	(1.50)	(-0.38)	(2.05)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.03)	(5.62)	(3.78)	(-4.79)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.43)	(-3.33)	(0.89)	(-0.71)	(-4.80)
INTANG	?	0.005**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(0.97)	(-3.34)	(1.96)	(-1.06)
INVMILLS	?	0.003***	0.003	0.003	-0.004	-0.003
		(2.58)	(1.21)	(1.05)	(-1.59)	(-1.07)
INTERCEPT	?	0.026***	-0.043***	-0.367***	0.326***	0.349***
		(5.19)	(-2.43)	(-28.67)	(19.82)	(22.10)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.59%	51.94%	2.71%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 13 (continued)

Panel C: Political Directors' Affiliation with the Political Party that Controls the Congress Relative to the White House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
AFFILIATE_CONGRESS	?	0.000	0.013**	0.009**	-0.001	-0.002
		(0.01)	(1.97)	(2.20)	(-0.09)	(-0.28)
AFFILIATE_WHOUSE	?	0.002	0.007	-0.009**	0.004	0.005
		(0.32)	(1.07)	(-2.00)	(0.65)	(1.05)
ROA	+	0.319***	0.216***	-0.069***	0.282***	0.063***
		(28.42)	(15.46)	(-3.04)	(14.64)	(2.56)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.06)	(12.27)	(3.06)	(-5.82)	(-10.45)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.50)	(-1.80)	(0.64)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.22)	(0.87)	(-3.67)	(3.63)
EQINC	?	-1.285***	2.148***	1.233***	-0.977*	-0.928
		(-5.46)	(4.69)	(2.77)	(-1.86)	(-1.57)
SIZE	?	-0.012***	0.048***	0.001	0.003*	-0.001
		(-17.16)	(21.84)	(1.29)	(1.68)	(-0.56)
LEV	+	0.030***	-0.151***	0.015	-0.001	-0.075***
		(6.66)	(-13.33)	(1.16)	(-0.06)	(-5.00)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.49)	(2.33)	(0.25)	(-4.92)	(-4.11)
HHI	?	0.032***	-0.055	0.067**	-0.052	0.069
		(2.60)	(-1.44)	(1.96)	(-1.48)	(1.58)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.39)	(11.51)	(0.30)	(0.13)	(0.41)
CASH	−	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.95)	(4.13)	(5.98)	(-5.60)	(-7.86)
Δ*GDWL*	?	-0.016	0.040**	0.036	-0.009	0.037**
		(-0.99)	(2.12)	(1.51)	(-0.38)	(2.05)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.03)	(5.60)	(3.78)	(-4.80)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.43)	(-3.33)	(0.89)	(-0.71)	(-4.80)
INTANG	?	0.005**	0.004	-0.044***	0.019**	-0.010
		(2.05)	(1.00)	(-3.34)	(1.96)	(-1.06)
INVMILLS	?	0.003	0.002	0.002	-0.004	-0.003
		(2.59)	(0.81)	(0.71)	(-1.50)	(-0.98)
INTERCEPT	?	0.026***	-0.045***	-0.367***	0.326***	0.349***
		(5.16)	(-2.81)	(-28.69)	(20.00)	(22.17)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.59%	51.95%	2.72%	9.54%	7.99%
Prob > F						
affiliate_congress = affiliate_whouse		0.865	0.545	**0.008**	0.660	0.404

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Directors' former political position and affiliation with the branch in power

Previous analyses do not consider the political director's joint attributes of the political position held while in government and affiliation to that branch of government in power. For this analysis, I consider whether a director's former political position and party affiliation to that branch of government matters for tax avoidance. I report the results in Table 14. In Panel A, I examine whether a political director's former position as a senator (*SENATOR*) and her party affiliation to the political party that controls the senate (*AFFILIATE_SENATE*) is associated with tax avoidance. The variable of interest is the interaction term *SENATOR*AFFILIATE_SENATE*. I find no relation between senators affiliated to the political party that controls the senate and tax avoidance (p-value > 0.10) across all tax avoidance proxies. The estimates for the main effect variables are consistent with previously reported results. For example, senators are associated with aggressive tax avoidance (column (1), *p*-value < 0.10) and political directors affiliated with the political party that controls the senate are associated with engaging in tax shelter activities (column (2), *p*-value = 0.05) The evidence in Panel A suggests that the joint characteristic of former senators affiliated with the political party in control of the senate have no incremental effect on firms' tax avoidance activities.

Next, I examine whether the joint characteristic of a representative (*REP*) and her affiliation to the political party that controls the house (*AFFILIATE_HOUSE*) is related to firms' tax avoidance activities. The results in Panel B, column (2) show a negative and marginally significant relation on the interaction term *REP*AFFILIATE_HOUSE* (*p*-value < 0.10), and a positive and significant relation on the main effect variable *AFFILIATE_HOUSE* (*p*-values < 0.01). In aggregate, the results suggest that former representatives affiliated with

the political party that controls the house moderate firms' tax aggressive positions. Overall, the findings in Table 14 suggest that the joint characteristics of the political director influences the level of tax aggressiveness firms undertake.

TABLE 14

Second-stage: Tax Avoidance and Political Directors' Former Political Position and Affiliation with the Branch of Government in

Panel A: Former Senators' Affiliation with the Political Party that Controls the Senate

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
SENATOR	?	0.013*	0.005	-0.010	0.014	0.012
		(1.70)	(0.31)	(-0.81)	(0.99)	(0.78)
AFFILIATE_SENATE	?	0.001	0.012**	0.001	-0.002	-0.001
		(0.15)	(1.95)	(0.12)	(-0.35)	(-0.12)
*SENATOR*AFFILIATE_SENATE*	?	-0.008	0.017	0.001	0.003	-0.004
		(-0.83)	(0.95)	(0.09)	(0.20)	(-0.23)
ROA	+	0.320***	0.216***	-0.273***	0.282***	0.063***
		(28.33)	(15.48)	(-15.64)	(14.64)	(2.56)
NOL	?	0.026***	0.053***	0.020***	-0.021***	-0.045***
		(11.07)	(12.27)	(6.22)	(-5.84)	(-10.45)
Δ*NOL*	?	0.016***	0.062***	0.002**	-0.002*	0.002
		(4.74)	(7.27)	(1.89)	(-1.80)	(0.63)
%FASSETS	+	0.008***	0.086***	0.018***	-0.025***	0.027***
		(2.72)	(13.17)	(2.99)	(-3.64)	(3.63)
EQINC	?	-1.293***	2.139***	0.669	-0.987*	-0.934
		(-5.50)	(4.68)	(1.43)	(-1.88)	(-1.58)
SIZE	?	-0.012***	0.048***	0.000	0.003*	-0.001
		(-16.89)	(21.91)	(0.07)	(1.71)	(-0.54)
LEV	+	0.030***	-0.151***	-0.004	-0.001	-0.075***
		(6.69)	(-13.30)	(-0.28)	(-0.06)	(-5.02)
MTB	?	0.001***	0.001***	0.003***	-0.004***	-0.003***
		(3.49)	(2.34)	(5.15)	(-4.93)	(-4.10)
HHI	?	0.032**	-0.055	0.061**	-0.053	0.068
		(2.55)	(-1.46)	(1.83)	(-1.51)	(1.57)
GEO_SEG	+	-0.005***	0.037***	-0.000	0.000	0.002
		(-2.39)	(11.44)	(-0.08)	(0.10)	(0.40)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.95)	(4.14)	(5.42)	(-5.60)	(-7.86)
Δ*GDWL*	?	-0.016	0.040**	0.017	-0.010	0.037**
		(-0.99)	(2.11)	(0.76)	(-0.39)	(2.05)
NEW_INVEST	?	0.000	0.085***	0.062***	-0.060***	-0.028
		(0.04)	(5.62)	(4.95)	(-4.79)	(-1.38)
PP&E	?	-0.007	-0.036***	0.007	-0.008	-0.069***
		(-1.45)	(-3.36)	(0.76)	(-0.74)	(-4.81)
INTANG	?	0.005**	0.005	-0.021***	0.019**	-0.010
		(2.07)	(1.01)	(-2.64)	(1.97)	(-1.06)
INVMILLS	?	0.003**	0.003	0.003	-0.004*	-0.003
		(2.12)	(1.19)	(1.32)	(-1.62)	(-0.90)
INTERCEPT	?	0.026***	-0.050***	0.002	0.327***	0.349***
		(5.23)	(-4.61)	(0.19)	(20.00)	(22.28)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.60%	51.95%	4.52%	9.56%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 14 (continued)

Panel B: Former Representatives' Affiliation with the Political Party that Controls the House

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
REP	?	0.007	0.014	0.004	0.015	-0.000
		(1.12)	(1.11)	(0.52)	(1.35)	(-0.01)
AFFILIATE_HOUSE	?	0.003	0.022***	-0.000	0.004	-0.002
		(0.91)	(3.00)	(-0.01)	(0.57)	(-0.36)
*REP*AFFILIATE_HOUSE*	?	-0.010	-0.026*	0.013	-0.017	0.008
		(-1.41)	(-1.66)	(1.38)	(-1.59)	(0.46)
ROA	+	0.319***	0.216***	-0.069***	0.282***	0.063***
		(28.40)	(15.38)	(-3.04)	(14.74)	(2.56)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.07)	(12.26)	(3.07)	(-5.83)	(-10.45)
ΔNOL	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.80)	(0.63)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.026***
		(2.71)	(13.24)	(0.88)	(-3.67)	(3.62)
EQINC	?	-1.287***	2.141***	1.242***	-0.977*	-0.924
		(-5.48)	(4.66)	(2.78)	(-1.86)	(-1.56)
SIZE	?	-0.012***	0.048***	0.001	0.003*	-0.001
		(-16.85)	(21.71)	(1.19)	(1.72)	(-0.49)
LEV	+	0.030***	-0.151***	0.015	-0.001	-0.075***
		(6.65)	(-13.38)	(1.12)	(-0.06)	(-5.01)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.48)	(2.33)	(0.30)	(-4.94)	(-4.13)
HHI	?	0.033***	-0.054	0.065**	-0.051	0.068
		(2.62)	(-1.42)	(1.92)	(-1.46)	(1.57)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.38)	(11.52)	(0.29)	(0.14)	(0.41)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.95)	(4.14)	(5.97)	(-5.61)	(-7.87)
ΔGDWL	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-1.00)	(2.08)	(1.50)	(-0.39)	(2.06)
NEW_INVEST	?	0.000	0.085***	0.068***	-0.060***	-0.028
		(0.03)	(5.61)	(3.78)	(-4.79)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.008	-0.069***
		(-1.45)	(-3.33)	(0.89)	(-0.73)	(-4.81)
INTANG	?	0.005**	0.004	-0.043***	0.019**	-0.010
		(2.06)	(1.00)	(-3.32)	(1.97)	(-1.06)
INVMILLS	?	0.003**	0.002	0.000	-0.004*	-0.002
		(2.13)	(0.77)	(0.05)	(-1.73)	(-0.66)
INTERCEPT	?	0.026***	-0.044***	-0.366	0.327***	0.349***
		(5.20)	(-3.26)	(-28.63)	(19.92)	(22.21)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.59%	51.95%	2.73%	9.55%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

ADDITIONAL ANALYSIS

Tax policy experience

The main analyses in this study examine whether certain characteristics of politically connected directors, facilitated by the strength of the political director's connections to current government officials, influence firms' tax outcomes. For this analysis, I examine whether a politically connected director's knowledge of the tax legislative environment, i.e., tax policy experience, is related to firms' tax avoidance activities. The U.S. Constitution grants Congress the power to tax, which is accomplished primarily through three congressional committees: House Ways and Means Committee, Senate Finance Committee, and Joint Committee on Taxation. Members of these committees are tasked with writing the nation's tax laws and setting tax policy.[44] Accordingly, it is logical to assume that political directors who served on tax-writing committees have a greater working knowledge to navigate complex tax legislative processes, compared to directors without tax policy experience. Also, the IRS Commissioner establishes and interprets tax administration policy, and likely represents an additional measure of tax expertise.[45] Thus, I also consider that an IRS Commissioner has tax policy experience.

Palmer and Schneer (2015) report that human and social capital developed through committee service is valuable, particularly committees that craft the nation's laws, because

[44] The House Ways and Means Committee is the chief-tax writing committee of the United States. Tax legislation is so important that most Committee members must serve in the House for several years before they qualify for appointment (www.waysandmeans.house.gov). The Senate Finance Committee is responsible for all Senate legislation dealing with tax matters (www.finance.senate.gov). The Joint Committee on Taxation provides information, advice, and assistance to the Ways and Means Committee concerning the revision of tax bill proposals. JCT has an oversight or policy role, but no legislative duties (www.jct.gov).

[45] www.irs.gov.

legislation has financial and regulatory implications for firms.[46] On the one hand, firms that operate in unpredictable tax environments may appoint a political director with tax expertise, not to *avoid* taxes per se, but to preserve existing tax benefits in order to maintain a sustainable tax strategy (McGuire, Neuman, and Omer 2012).[47] On the other hand, political directors' service on tax-writing committees likely provides them with insight into predicting government legislative actions designed to target corporate tax avoiders. Under this scenario, political directors with tax policy expertise may advise firms to constrain their tax avoidance activities to pre-empt government inquiry and possible sanctions, or use their knowledge of tax policy to help develop or improve the firms' tax planning strategies. Based on the discussion above, it is possible that the relation between political connections and tax avoidance is stronger, weaker, or has no effect for firms whose political directors have tax policy experience.

To examine the relationship between tax avoidance and politically connected directors' tax policy expertise, I estimate the following second-stage regression model:

$$TAXAVOID_{i,t} = \alpha_0 + \beta_1 TAX\_EXPERT_{i,t} + \beta_2 NO\_TAXEXPERT_{i,t} + \gamma CONTROLS_{i,t} + \varphi INVMILLS_{i,t} + \delta INDUSTRY_i + \theta YEAR_t + \varepsilon_{i,t} \quad (6)$$

where all variables are defined in Appendix I. The variable of interest is *TAX_EXPERT*, and is equal to one if a politically connected director served on the Senate Finance Committee, House Ways and Means Committee, Joint Committee on Taxation, or as IRS Commissioner, and zero otherwise. Because *TAX_EXPERT* measures only the average difference between firm-years with tax expertise and firm-years with no tax expertise, I construct variable,

[46] Palmer and Schneer (2015) examine characteristics of former senators that increase the likelihood of a board directorship. They find that senators who served on the Finance and Intelligence Committees are more likely to serve on a board.

[47] McGuire et al. (2012) define a sustainable tax strategy as consistent tax outcomes over time without regard to the level of tax avoidance.

NO_TAXEXPERT, which captures firm-years without a tax expert political director. This variable is equal to one for firm-years without tax policy expertise, and zero otherwise. A negative coefficient when *DTAX*, *SHELTER*, and *TA_ETR* are the dependent variables, and a positive coefficient when *ETR* or *CETR* serves as the dependent variable suggest that politically connected directors with tax experience have a weaker association with firms' tax avoidance activities. However, a positive coefficient when *DTAX*, *SHELTER*, and *TA_ETR* are the dependent variables, and a negative coefficient when *ETR* or *ETR* is the dependent variable suggest that political directors with tax experience have a stronger association with firms' tax avoidance. I then test whether the coefficients on *TAX_EXPERT* and *NO_TAXEXPERT* are statistically different, i.e., ($\beta_1 \neq \beta_2$).

Table 15, Panel A reports the results. I find a positive and significant association between *TAX_EXPERT* and *DTAX* (coef. = 0.047; *t* = 3.30), and *SHELTER* (coef. = 0.077; *t* = 2.56), controlling for firm-years with no tax policy expertise (*NO_TAXEXPERT*) and firm characteristics, which suggest that a political director's tax expertise is associated with aggressive tax avoidance activities. However, the results are similar for firm-years with no tax expertise. Thus, I test the statistical difference between the coefficients on *TAX_EXPERT* and *NO_TAXEXPERT*, and find no significant difference between the coefficients across all tax proxies ($\beta_1 = \beta_2$). The results suggest that a political directors network connections to government, rather than the political director's tax expertise, is more valuable for firms' tax outcomes.

Alternative tax expertise measure

For this analysis, I examine whether political directors who served in more than one tax expert position affects firms' tax avoidance. I re-estimate Equation (6) and use an

alternative measure of tax policy expertise. *TAXEXPERT_MORE* is an indicator variable equal to one if a politically connected director served in more than one tax expert position while in government, and zero otherwise. The results are reported in Table 15, Panel B. I find a positive and significant coefficient on *TAXEXPERT_MORE* when *SHELTER* (coef. = 0.087; t = 2.18) and *ETR* (coef. = 0.029; t = 1.76) are the tax avoidance measures, controlling for firm-years with no tax experts (*NO_ TAXEXPERT*) and firm characteristics. However, consistent with the main results reported in Panel A, I do not find a statistical difference between the coefficients on *TAXEXPERT_MORE* and *NO_ TAXEXPERT* (p-values > 0.10).

TABLE 15

Second-stage: Tax Avoidance and Political Directors' Tax Expertise

Panel A: Political Directors with Tax Expertise Compared to Political Directors without Tax Expertise

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
TAX_EXPERT	?	0.047***	0.077***	-0.017	0.018	-0.012
		(3.30)	(2.56)	(-0.70)	(0.94)	(-0.41)
NO_TAXEXPERT	?	0.041***	0.079***	-0.014	0.016	-0.012
		(2.90)	(2.85)	(-0.63)	(0.93)	(-0.43)
ROA	+	0.323***	0.222***	-0.070***	0.283***	0.062***
		(26.88)	(15.19)	(-3.10)	(14.70)	(2.54)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.045***
		(10.94)	(12.21)	(3.06)	(-5.87)	(-10.54)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.26)	(-0.49)	(-1.86)	(0.61)
%FASSETS	+	0.008***	0.087***	0.006	-0.025***	0.026***
		(2.87)	(13.51)	(0.85)	(-3.63)	(3.56)
EQINC	?	-1.316***	2.095***	1.248***	-0.984*	-0.920
		(-5.74)	(4.65)	(2.79)	(-1.87)	(-1.55)
SIZE	?	-0.014***	0.045***	0.002	0.002	-0.000
		(-12.16)	(17.10)	(1.45)	(1.11)	(-0.06)
LEV	+	0.025***	-0.160***	0.017	-0.003	-0.073***
		(5.92)	(-13.08)	(1.32)	(-0.15)	(-4.48)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(4.01)	(2.67)	(0.17)	(-4.83)	(-4.00)
HHI	?	0.029**	-0.063*	0.068**	-0.053	0.070*
		(2.29)	(-1.68)	(1.97)	(-1.51)	(1.61)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.42)	(11.58)	(0.29)	(0.13)	(0.42)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.97)	(4.17)	(5.93)	(-5.59)	(-7.88)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-1.02)	(2.06)	(1.53)	(-0.41)	(2.07)
NEW_INVEST	?	0.001	0.086***	0.067***	-0.060***	-0.028
		(0.15)	(5.69)	(3.74)	(-4.74)	(-1.40)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.47)	(-3.35)	(0.90)	(-0.71)	(-4.82)
INTANG	?	0.004**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(0.94)	(-3.38)	(2.00)	(-1.09)
INVMILLS	?	-0.020***	-0.037	0.010	-0.012	0.005
		(-2.48)	(-2.42)	(0.71)	(-1.21)	(0.30)
INTERCEPT	?	0.030***	-0.036**	-0.369***	0.328***	0.348***
		(5.56)	(-2.18)	(-27.28)	(19.88)	(20.74)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.62%	51.96%	2.70%	9.54%	7.99%
Prob > F						
tax_expert = no_taxexpert		0.244	0.909	0.828	0.896	0.975

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 15 (continued)

Panel B: Tax Avoidance and Politically Connected Directors who Served in Multiple Tax Expert Positions

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
TAXEXPERT_MORE	?	-0.006	0.087**	-0.029	0.029*	0.018
		(-0.45)	(2.18)	(-1.13)	(1.76)	(0.68)
NO_TAXEXPERT	?	0.007	0.037***	-0.007	0.008	-0.000
		(1.02)	(2.57)	(-0.46)	(0.69)	(-0.01)
ROA	+	0.320***	0.218***	-0.069***	0.282***	0.063***
		(27.91)	(15.56)	(-3.02)	(14.64)	(2.54)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.03)	(12.26)	(3.06)	(-5.87)	(-10.54)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.26)	(-0.49)	(-1.82)	(0.61)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.39)	(0.86)	(-3.63)	(3.59)
EQINC	?	-1.291***	2.145***	1.235***	-0.972*	-0.924
		(-5.57)	(4.73)	(2.77)	(-1.84)	(-1.56)
SIZE	?	-0.012***	0.047***	0.002	0.002	-0.001
		(-15.87)	(21.68)	(1.37)	(1.35)	(-0.40)
LEV	+	0.029***	-0.155***	0.016	-0.002	-0.075***
		(7.03)	(-13.21)	(1.26)	(-0.10)	(-4.74)
MTB	?	0.001***	0.001***	0.000	-0.004***	-0.003***
		(3.66)	(2.51)	(0.21)	(-4.86)	(-3.95)
HHI	?	0.032***	-0.056	0.067**	-0.052	0.069
		(2.59)	(-1.47)	(1.95)	(-1.49)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.000	0.002
		(-2.40)	(11.57)	(0.29)	(0.13)	(0.42)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.94)	(4.13)	(5.96)	(-5.62)	(-7.91)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-1.03)	(2.06)	(1.52)	(-0.41)	(2.05)
NEW_INVEST	?	0.001	0.085***	0.067***	-0.060***	-0.028
		(0.09)	(5.65)	(3.75)	(-4.75)	(-1.40)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.42)	(-3.35)	(0.90)	(-0.71)	(-4.81)
INTANG	?	0.004**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(0.96)	(-3.38)	(2.00)	(-1.05)
INVMILLS	?	-0.000	-0.013*	0.005	-0.008	-0.002
		(-0.03)	(-1.65)	(0.59)	(-1.15)	(-0.23)
INTERCEPT	?	0.027***	-0.042***	-0.368***	0.327***	0.349***
		(5.12)	(-2.49)	(-27.79)	(19.56)	(21.77)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.58%	51.95%	2.71%	9.55%	7.99%
Prob > F *taxexpert_more = no_taxexpert*		0.167	0.186	0.279	0.173	0.402

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Analysis of each tax expertise position

Table 16 reports the results from re-estimating Equation (6) for each tax expert position. First, I examine the effect of political directors' service on the House Ways and Means Committee (*WAYS_MEANS*) on firms' tax avoidance activities. The estimates in Panel A provide some evidence of a statistical relation between *TAXAVOID* and *WAYS_MEANS*. Specifically, the coefficient is significant and negative when *DTAX* serves as the tax avoidance proxy (coef. = -0.012; t = -1.76), which suggests that the association between political connections and tax avoidance is weaker for firms whose politically connected directors served on the Ways and Means Committee. Next, I examine the relation between political directors' service on the Senate Finance Committee (*FINANCE_CMTE*) and firms' tax avoidance activities. The results are reported in Panel B. The estimates provide evidence of a positive statistical relation between tax avoidance and a political director's service on the Senate Finance Committee, when *DTAX* is the tax proxy (p-value < 0.01).

Panel C reports the results for the relation between political directors' service on the Joint Committee on Taxation (*JCT*) and firms' tax avoidance. I find evidence that firms with political directors who served on the Joint Committee on Taxation exhibit lower levels of tax avoidance. Specifically, the coefficient is -0.056 (t = -2.12) when *SHELTER* is the measure of tax avoidance, and 0.042 (t = 3.93) when *ETR* is the measure of tax avoidance. Next, I consider the effect of political directors' tax expertise as IRS Commissioner (*IRS_COMM*) on firms' tax avoidance. The estimates reported in Panel D show a positive statistical relation between *IRS_COMM* and *DTAX* (p-value < 0.05).

To complete the analysis, I perform a joint test of significance between the coefficients on each tax expert position. Accordingly, I re-estimate Equation (6) and include

all four tax expert variables. The difference between coefficients reported in Panel E show that when *DTAX* is the measure of tax avoidance, the association between political connections and tax avoidance is more positive for firms whose directors served on the Finance Committee or as IRS Commissioner, compared to firms whose directors served on the Ways and Means Committee (*p*-values < 0.01). With regard to the tax shelter score, I find a statistical difference between the coefficients on *FINANCE_CMTE* and *JCT* (*p*-value < 0.01), and marginal significant difference between *FINANCE_CMTE* and *IRS_COMM* (*p*-value = 0.10).

Moreover, when *ETR* is the measure of tax avoidance, I find that the association between political connections and tax avoidance is statistically more negative for firms whose political directors served on the Finance Committee, compared to political directors who served on the Joint Committee on Taxation. I do not find a statistical difference between coefficients when *TA_ETR* or *CETR* is the measure of tax avoidance (*p*-values > 0.10). Overall, the results suggest that political directors who served on Senate Finance Committee are likely to have better political connections to current members of Congress, and to exploit those connections, as evidenced by higher levels of tax aggressiveness, compared to political directors who served in other tax expert positions.

TABLE 16

Second-stage: Tax Avoidance and each Tax Expertise Position

Panel A: Political Directors' Tax Expertise - House Ways and Means Committee Member

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
WAYS_MEANS	?	-0.012*	0.010	0.006	0.006	0.009
		(-1.76)	(0.35)	(0.29)	(0.26)	(0.35)
ROA	+	0.319***	0.215***	-0.069***	0.282***	0.063***
		(28.37)	(15.48)	(-3.03)	(14.67)	(2.55)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.05)	(12.26)	(3.06)	(-5.82)	(-10.44)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.27)	(-0.49)	(-1.80)	(0.63)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.18)	(0.89)	(-3.68)	(3.62)
EQINC	?	-1.289***	2.167***	1.241***	-0.974*	-0.924
		(-5.52)	(4.73)	(2.79)	(-1.85)	(-1.55)
SIZE	?	-0.012***	0.049***	0.001	0.003*	-0.001
		(-16.83)	(22.36)	(1.25)	(1.76)	(-0.51)
LEV	+	0.030***	-0.150***	0.015	-0.001	-0.075***
		(6.70)	(-13.15)	(1.16)	(-0.05)	(-5.04)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.45)	(2.28)	(0.26)	(-4.95)	(-4.13)
HHI	?	0.032***	-0.052	0.067**	-0.052	0.069
		(2.60)	(-1.37)	(1.97)	(-1.47)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.39)	(11.52)	(0.29)	(0.14)	(0.41)
CASH	–	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.94)	(4.11)	(5.96)	(-5.61)	(-7.87)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.010	0.037**
		(-1.00)	(2.06)	(1.50)	(-0.38)	(2.05)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.03)	(5.63)	(3.78)	(-4.80)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.41)	(-3.35)	(0.90)	(-0.71)	(-4.81)
INTANG	?	0.005**	0.004	-0.044***	0.019**	-0.010
		(2.06)	(0.99)	(-3.34)	(1.96)	(-1.06)
INVMILLS	?	0.004***	0.006***	0.001	-0.003	-0.002
		(3.80)	(2.49)	(0.57)	(-1.59)	(-0.88)
INTERCEPT	?	0.026***	-0.044***	-0.367***	0.326***	0.349***
		(5.19)	(-2.61)	(-28.63)	(19.77)	(22.10)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.59%	51.93%	2.70%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 16 (continued)

Panel B: Political Directors' Tax Expertise -Senate Finance Committee Member

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
FINANCE_CMTE	?	0.013***	0.030	-0.011	-0.002	0.003
		(2.88)	(1.58)	(-0.69)	(-0.14)	(0.23)
ROA	+	0.319***	0.215***	-0.069***	0.282***	0.063***
		(28.32)	(15.48)	(-3.05)	(14.65)	(2.56)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.06)	(12.23)	(3.06)	(-5.82)	(-10.44)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.49)	(-1.80)	(0.63)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.15)	(0.89)	(-3.68)	(3.62)
EQINC	?	-1.288***	2.154***	1.239***	-0.976*	-0.929
		(-5.52)	(4.70)	(2.79)	(-1.86)	(-1.57)
SIZE	?	-0.012***	0.049***	0.001	0.003*	-0.001
		(-16.70)	(22.12)	(1.32)	(1.78)	(-0.51)
LEV	+	0.030***	-0.150***	0.015	-0.001	-0.075***
		(6.66)	(-13.18)	(1.16)	(-0.04)	(-5.03)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.48)	(2.29)	(0.26)	(-4.94)	(-4.13)
HHI	?	0.033***	-0.052	0.066**	-0.052	0.069
		(2.61)	(-1.38)	(1.95)	(-1.47)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.39)	(11.50)	(0.29)	(0.14)	(0.41)
CASH	−	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.95)	(4.12)	(5.94)	(-5.59)	(-7.87)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.009	0.037**
		(-0.99)	(2.08)	(1.50)	(-0.38)	(2.06)
NEW_INVEST	?	0.000	0.085***	0.068***	-0.060***	-0.028
		(0.03)	(5.60)	(3.79)	(-4.77)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.43)	(-3.35)	(0.89)	(-0.71)	(-4.81)
INTANG	?	0.005**	0.004	-0.044***	0.018**	-0.010
		(2.06)	(1.00)	(-3.34)	(1.96)	(-1.07)
INVMILLS	?	0.003***	0.006**	0.002	-0.003	-0.002
		(3.18)	(2.32)	(0.71)	(-1.44)	(-0.84)
INTERCEPT	?	0.026***	-0.044***	-0.367***	0.326***	0.349***
		(5.23)	(-2.55)	(-28.61)	(19.88)	(22.13)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.60%	51.94%	2.71%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 16 (continued)

Panel C: Political Directors' Tax Expertise - Joint Committee on Taxation Member

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
JCT	?	-0.008	-0.056**	0.003	0.042***	-0.021
		(-0.51)	(-2.12)	(0.20)	(3.93)	(-0.39)
ROA	+	0.319***	0.215***	-0.069***	0.282***	0.063***
		(28.36)	(15.50)	(-3.03)	(14.68)	(2.55)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.07)	(12.25)	(3.06)	(-5.82)	(-10.48)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.49)	(-1.80)	(0.63)
%FASSETS	+	0.008***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.16)	(0.89)	(-3.68)	(3.62)
EQINC	?	-1.286***	2.155***	1.238***	-0.971*	-0.929
		(-5.50)	(4.72)	(2.79)	(-1.85)	(-1.57)
SIZE	?	-0.012***	0.049***	0.001	0.003*	-0.001
		(-16.84)	(22.37)	(1.26)	(1.74)	(-0.48)
LEV	+	0.030***	-0.150***	0.015	-0.001	-0.075***
		(6.68)	(-13.16)	(1.16)	(-0.04)	(-5.03)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.47)	(2.26)	(0.26)	(-4.94)	(-4.14)
HHI	?	0.032***	-0.053	0.067**	-0.051	0.069
		(2.61)	(-1.39)	(1.96)	(-1.46)	(1.58)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.39)	(11.50)	(0.29)	(0.17)	(0.40)
CASH	−	0.014***	0.039***	0.065***	-0.070***	-0.080***
		(2.94)	(4.11)	(5.96)	(-5.61)	(-7.88)
Δ*GDWL*	?	-0.016	0.039**	0.036	-0.009	0.037**
		(-1.00)	(2.05)	(1.50)	(-0.38)	(2.05)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.03)	(5.62)	(3.78)	(-4.77)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.008	-0.069***
		(-1.42)	(-3.32)	(0.90)	(-0.73)	(-4.80)
INTANG	?	0.005**	0.004	-0.044***	0.018**	-0.010
		(2.06)	(0.99)	(-3.34)	(1.96)	(-1.07)
INVMILLS	?	0.003***	0.007***	0.001	-0.003*	-0.002
		(3.64)	(2.69)	(0.60)	(-1.62)	(-0.81)
INTERCEPT	?	0.026***	-0.044***	-0.367***	0.326***	0.349***
		(5.19)	(-2.61)	(-28.57)	(19.79)	(22.07)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.59%	51.93%	2.70%	9.55%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 16 (continued)

Panel D: Political Directors' Tax Expertise - IRS Commissioner

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
IRS_COMM	?	0.025**	-0.060	-0.057	0.016	-0.024
		(2.10)	(-1.19)	(-0.75)	(0.43)	(-0.37)
ROA	+	0.319***	0.215***	-0.070***	0.282***	0.063***
		(28.36)	(15.49)	(-3.08)	(14.70)	(2.55)
NOL	?	0.026***	0.053***	0.012***	-0.021***	-0.045***
		(11.08)	(12.24)	(3.02)	(-5.86)	(-10.52)
Δ*NOL*	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.49)	(-1.80)	(0.63)
%FASSETS	+	0.007***	0.086***	0.006	-0.025***	0.027***
		(2.69)	(13.21)	(0.94)	(-3.68)	(3.62)
EQINC	?	-1.283***	2.159***	1.234***	-0.975*	-0.930
		(-5.49)	(4.72)	(2.78)	(-1.85)	(-1.57)
SIZE	?	-0.012***	0.049***	0.001	0.003*	-0.001
		(-16.82)	(22.40)	(1.30)	(1.76)	(-0.49)
LEV	+	0.030***	-0.150***	0.015	-0.001	-0.075***
		(6.66)	(-13.10)	(1.16)	(-0.04)	(-5.03)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.46)	(2.28)	(0.30)	(-4.95)	(-4.10)
HHI	?	0.032***	-0.052	0.068**	-0.052	0.069
		(2.57)	(-1.35)	(1.99)	(-1.47)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.38)	(11.51)	(0.27)	(0.14)	(0.41)
CASH	−	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.94)	(4.10)	(5.96)	(-5.60)	(-7.86)
Δ*GDWL*	?	-0.016	0.039**	0.035	-0.010	0.037**
		(-1.01)	(2.07)	(1.50)	(-0.39)	(2.06)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.03)	(5.62)	(3.78)	(-4.78)	(-1.39)
PP&E	?	-0.007	-0.036***	0.010	-0.007	-0.069***
		(-1.42)	(-3.35)	(0.91)	(-0.71)	(-4.81)
INTANG	?	0.005**	0.004	-0.043***	0.018**	-0.010
		(2.06)	(0.99)	(-3.33)	(1.96)	(-1.06)
INVMILLS	?	0.003***	0.007	0.002	-0.003	-0.002
		(3.53)	(2.69)	(0.72)	(-1.55)	(-0.81)
INTERCEPT	?	0.026***	-0.045***	-0.367***	0.326***	0.349***
		(5.20)	(-2.63)	(-28.66)	(19.77)	(22.02)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.59%	51.93%	2.72%	9.54%	7.99%

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

TABLE 16 (continued)

Panel E: Tax Avoidance and Comparison of each Tax Expert Position

Variable[a]	Pred. Sign	(1) *DTAX* Coefficents (*t*-statistic)[b, c]	(2) *SHELTER* Coefficients (*t*-statistic)	(3) *TA_ETR* Coefficients (*t*-statistic)	(4) *ETR* Coefficients (*t*-statistic)	(5) *CETR* Coefficients (*t*-statistic)
WAYS_MEANS	?	-0.019***	0.003	0.012	0.002	0.010
		(-2.71)	(0.12)	(0.51)	(0.09)	(0.35)
FINANCE_CMTE	?	0.017***	0.028	-0.014	-0.002	0.000
		(4.72)	(1.55)	(-0.77)	(-0.12)	(0.03)
JCT	?	-0.002	-0.056**	-0.003	0.041***	-0.024
		(-0.13)	(-2.00)	(-0.19)	(2.71)	(-0.43)
IRS_COMM	?	0.025**	-0.058	-0.057	0.016	-0.024
		(2.12)	(-1.17)	(-0.76)	(0.44)	(-0.37)
ROA	+	0.319***	0.215***	-0.070***	0.282***	0.063***
		(28.36)	(15.50)	(-3.10)	(14.69)	(2.55)
NOL	?	0.026***	0.052***	0.012***	-0.021***	-0.045***
		(11.05)	(12.21)	(3.01)	(-5.84)	(-10.50)
ΔNOL	?	0.016***	0.062***	-0.002	-0.002*	0.002
		(4.74)	(7.28)	(-0.49)	(-1.80)	(0.63)
%FASSETS	+	0.007***	0.086***	0.006	-0.025***	0.027***
		(2.72)	(13.17)	(0.95)	(-3.69)	(3.62)
EQINC	?	-1.295***	2.143***	1.242***	-0.969*	-0.927
		(-5.55)	(4.68)	(2.79)	(-1.84)	(-1.55)
SIZE	?	-0.012***	0.049***	0.001	0.003*	-0.001
		(-16.73)	(22.21)	(1.35)	(1.76)	(-0.48)
LEV	+	0.030***	-0.150***	0.015	-0.001	-0.075***
		(6.65)	(-13.13)	(1.16)	(-0.04)	(-5.04)
MTB	?	0.001***	0.001**	0.000	-0.004***	-0.003***
		(3.46)	(2.28)	(0.30)	(-4.94)	(-4.12)
HHI	?	0.032***	-0.052	0.067**	-0.052	0.069
		(2.56)	(-1.35)	(1.98)	(-1.47)	(1.59)
GEO_SEG	+	-0.005***	0.037***	0.001	0.001	0.002
		(-2.40)	(11.48)	(0.28)	(0.17)	(0.40)
CASH	–	0.014***	0.039***	0.064***	-0.070***	-0.080***
		(2.96)	(4.12)	(5.93)	(-5.59)	(-7.87)
$\Delta GDWL$	?	-0.016	0.039**	0.035	-0.009	0.037**
		(-1.00)	(2.07)	(1.49)	(-0.38)	(2.05)
NEW_INVEST	?	0.000	0.085***	0.067***	-0.060***	-0.028
		(0.03)	(5.60)	(3.79)	(-4.78)	(-1.40)
PP&E	?	-0.007	-0.036***	0.010	-0.008	-0.069***
		(-1.39)	(-3.33)	(0.90)	(-0.73)	(-4.79)
INTANG	?	0.005**	0.005	-0.043***	0.018**	-0.010
		(2.06)	(1.00)	(-3.33)	(1.95)	(-1.05)
INVMILLS	?	0.003***	0.006***	0.002	-0.003	-0.002
		(3.24)	(2.45)	(0.79)	(-1.59)	(-0.80)
INTERCEPT	?	0.027***	-0.044***	-0.368***	0.326***	0.349***
		(5.24)	(-2.58)	(-28.72)	(19.88)	(22.01)
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes
R^2		26.61%	51.95%	2.73%	9.55%	7.99%
Prob > F						
ways_means = finance_cmte		**0.000**	0.479	0.487	0.913	0.808
ways_means = jct		0.372	0.191	0.655	0.334	0.614
ways_means = irs_comm		**0.000**	0.270	0.366	0.747	0.631
finance_cmte = jct		0.243	**0.008**	0.636	**0.019**	0.665
finance_cmte = irs_comm		0.540	**0.107**	0.579	0.654	0.718
jct = irs_comm		0.187	0.966	0.493	0.542	1.000

[a] Variables are defined in Appendix I.

[b] ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

[c] Standard errors are clustered by firm and year (Peterson 2009).

Alternative research design - quantile regression

The analyses examined in this study provide the effect of the treatment group on the average level of firms' tax avoidance. Yet, the relationship between political directors and tax avoidance may differ at relatively high or low levels of tax avoidance. For example, boards with more high-profile directors may affect firms' tax outcomes at extreme levels of tax avoidance because increased reputational costs may outweigh the marginal benefit of additional tax savings. A quantile regression, however, allows me to assess the relation between political director characteristics and tax avoidance in other parts of the tax avoidance distribution. Indeed, Armstrong et al. (2015) find no evidence of a statistical relation between certain board characteristics and *TA_ETR* using OLS regression models, but, using quantile regressions, they do find that more financially sophisticated boards moderate relatively extreme levels of tax avoidance.[48] Consistent with the findings in Armstrong et al. (2015), I find no evidence of a statistical relation between *TA_ETR* and most political director characteristics, including the alternative measures, using the treatment effects model. The quantile regression results are reported in Table 18.

First, I re-estimate Equation (2) and examine whether the relation between politically connected directors and tax avoidance varies across the tax avoidance distributions. Panel A reports the estimates from the second stage regressions and quantile regressions. As previously reported, the second-stage estimates show no evidence of a statistical relation between *PCD* and *LN_PCD_TOTAL* when *TA_ETR* is the measure of tax avoidance (coef. = -0.015, -0.007; t = -0.65, -0.64, respectively).[49] With regard to the quantile regressions, the estimates in column (1) do not exhibit much variation across the tax avoidance distribution,

[48] In addition to *TA_ETR*, Armstrong et al. (2015) also use the ending balance of firm's uncertain tax benefits (UTBs) as a second measure of tax avoidance.
[49] The second-stage estimates are those reported in Tables 3 and 8, respectively.

evidenced by the insignificant difference in coefficients across quantiles (*p*-values > 0.10). Column (2) reports the estimates from the quantile regression when *LN_PCD_TOTAL* is the variable of interest. Unlike the pattern in Column (1), the results in Column (2) exhibit some variation between the number of political directors on the board and tax avoidance at specified percentiles across the distribution. The difference in coefficients at the 10th percentile are significantly more negative than the coefficients at the 90th percentile (*p*-value < 0.05) and the 50th percentile (*p*-value < 0.01). Also, the difference in coefficients at the 80th percentile is statistically more positive than the coefficient at the 20th percentile (*p*-value < 0.10). Overall, the distribution patterns suggest that firms with political directors are more tax aggressive because political directors likely use their political connections to curry favor with politicians, which provides political cover for the firm to engage in aggressive tax strategies.

Next, I examine whether the relation between characteristics of political directors and tax avoidance varies across the tax avoidance distribution. The results are reported in Panel B. As previously discussed, the second-stage estimates on most political director characteristics show no relation to tax avoidance when *TA_ETR* is the tax avoidance measure.[50] In contrast, the estimates from the quantile regressions suggest a relation between political director characteristics and tax avoidance at extreme tails of the tax avoidance distribution. For example, in column (2), the coefficient at the 90th percentile (coef. = -0.019; *t* = -1.73) is statistically more negative than the coefficient at the 50th percentile (coef. = 0.003; t = 0.70) (*p*-value < 0.10). This finding suggests that directors who served in multiple high-profile roles attenuate relatively extreme levels of tax avoidance.

Moreover, the estimates in Column (4) show that the relation between political directors with more tax policy expertise and tax avoidance varies at specified percentiles

[50] The second-state estimates are those reported in Tables 4, 10, and 15, respectively.

across the distribution. For example, the coefficients at the 90th percentile are statistically more negative than the coefficients at the 10th percentile (*p*-value = 0.05) and the 50th percentile (*p*-value < 0.01). Also, the coefficient at the 80th percentile (coef. = -0.024; *t* = -2.02) is statistically more negative than the coefficient at the 20th percentile (coef. = 0.033; *t* = 4.58) (*p*-value < 0.01). This pattern suggests that boards with political directors with more tax policy expertise moderate extreme levels of tax avoidance. Political directors with this characteristic-type are likely more informed about forthcoming tax law changes and potentially limit firms' aggressive tax avoidance activities to mitigate political costs.

TABLE 17

Quantile Regression

Panel A: Presence of Politically Connected Directors

	(1)		(2)	
Dependent Variable	*TA_ETR*		*TA_ETR*	
Independent Variable	*PCD*		*LN_PCD_TOTAL*	
	Coef.	*t*-stat	Coef.	*t*-stat
Second-stage estimates	-0.015	(-0.65)	-0.007	(-0.64)
Quantile				
0.10	**0.025**	**2.60**	-0.015	-1.20
0.20	**0.028**	**3.66**	0.005	0.69
0.30	**0.032**	**5.35**	**0.016**	**2.69**
0.40	**0.028**	**5.43**	**0.016**	**3.72**
0.50	**0.027**	**6.32**	**0.018**	**3.62**
0.60	**0.019**	**3.45**	**0.016**	**4.42**
0.70	**0.020**	**3.09**	**0.021**	**3.69**
0.80	0.016	1.38	**0.021**	**3.06**
0.90	0.011	0.53	0.011	1.00
Avg Pseudo R^2		0.040		0.039
Q(0.80) = Q(0.20)		0.185		0.081
Q(0.90) = Q(0.10)		0.346		0.046
Q(0.90) = Q(0.50)		0.394		0.411
Q(0.10) = Q(0.50)		0.815		0.001

Panel B: Politically Connected Directors' Political Profile and Tax Policy Experience

	(1)		(2)		(3)		(4)	
Dependent Variable	*TA_ETR*		*TA_ETR*		*TA_ETR*		*TA_ETR*	
Independent Variable	*High_Profile*		*HighProfile_more*		*Tax_Expert*		*TaxExpert_more*	
	Coef.	*t*-stat	Coef.	*t*-stat	Coef.	*t*-stat	Coef.	*t*-stat
Second-stage estimates	-0.012	(-0.53)	-0.008	(-0.86)	-0.017	(-0.70)	-0.029	(-1.13)
Quantile								
0.10	**0.029**	**2.71**	0.008	0.70	0.012	0.48	0.037	0.75
0.20	**0.032**	**3.36**	**0.011**	**1.84**	**0.027**	**3.56**	**0.033**	**4.58**
0.30	**0.034**	**6.06**	0.006	1.12	**0.027**	**3.27**	**0.027**	**3.08**
0.40	**0.029**	**5.35**	0.004	0.97	**0.029**	**6.06**	**0.020**	**2.75**
0.50	**0.027**	**6.96**	0.003	0.70	**0.025**	**6.39**	0.005	0.75
0.60	**0.019**	**4.03**	-0.002	-0.60	**0.020**	**2.28**	0.000	0.05
0.70	**0.019**	**3.48**	-0.002	-0.42	**0.015**	**1.71**	-0.008	-1.05
0.80	0.015	1.18	-0.001	-0.15	0.008	0.42	**-0.024**	**-2.02**
0.90	0.011	0.61	**-0.019**	**-1.73**	0.019	0.63	**-0.069**	**-3.65**
Avg Pseudo R^2		0.040		0.039		0.040		0.040
Q(0.80) = Q(0.20)		0.185		0.222		0.294		0.000
Q(0.90) = Q(0.10)		0.346		0.145		0.870		0.052
Q(0.90) = Q(0.50)		0.394		0.076		0.825		0.000
Q(0.10) = Q(0.50)		0.815		0.642		0.057		0.528

VI. CONCLUSIONS

My study examines whether the characteristics of politically connected directors influence firms' tax avoidance activities. This study is the first to attempt to empirically identify underlying mechanisms by which political directors influence firms' tax avoidance strategies. I use the BoardEx database to identify directors who are politically connected and then classify political directors based upon their individual characteristics. I explore three main political director characteristics: 1) political profile; 2) affiliation to the political party in power; and 3) length of government tenure. Also, I explore alternative measures for some political director characteristics, and perform several sensitivity analyses and robustness tests. I use five existing measures of tax avoidance: discretionary permanent book-tax differences, tax shelter prediction score, industry- and size-matched GAAP effective tax rate, GAAP effective tax rate, and cash effective tax rate.

I find evidence that characteristics of political directors influence firms' tax avoidance strategies, but there is variation in the extent of the benefit that some politically connected directors provide. For example, the evidence suggests that high-profile directors are associated with extreme forms of tax avoidance, but the level of tax aggressiveness varies among the different political profile types. Also, political directors affiliated with the political party that controls a branch of government is associated with aggressive tax strategies. However, the level of tax aggressiveness is higher when political directors are affiliated with the political party that controls Congress, compared to the political party that controls the white house. Lastly, I examine the association between political directors' government tenure

and tax avoidance, and find that firms with politically connected directors with lengthy government service are associated with aggressive tax avoidance.

My study contributes to the literature on determinants of tax avoidance by providing evidence on the characteristics of politically connected directors that influence firms' tax avoidance. I also contribute to research on the outcomes of corporate political activity by providing evidence on the mechanisms by which politically connected directors influence firms' tax avoidance activities.

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APPENDIX I

Variable Definitions[a, b, c]

Dependent Variables (Tax Avoidance Proxies)

DTAX — discretionary permanent book-tax differences, calculated following Frank et al. (2009), which is residual from the following regression estimated by year and two-digit SIC code:

$$PERMDIFF_{i,t} = \alpha_0 + \alpha_1 INTAN_{i,t} + \alpha_2 UNCON_{i,t} + \alpha_3 MI_{i,t} + \alpha_4 CSTE_{i,t} + \alpha_5 NOL_{i,t} + \alpha_6 LAGPERM_{i,t} + \varepsilon_{i,t}$$

where *PERMDIFF* is total book-tax difference less temporary book-tax difference: [{PI – [(TXFED + TXFO) / STR]} – (TXDI / STR)], scaled by lagged assets (AT); *INTAN* = goodwill and other intangible assets (INTAN), scaled by lagged assets; *UNCON* = income (loss) reported under the equity method (ESUB), scaled by lagged assets; *MI* = income (loss) attributable to minority interest (MII), scaled by lagged assets; *CSTE* = current state tax expense (TXS), scaled by lagged assets; *NOL* = change in net operating loss carryforwards (TLCF), scaled by lagged assets; *LAGPERM* = *PERMDIFF* in year *t*–1; and *STR* is the statutory tax rate;

SHELTER — indicator variable equal to one for forms in the top quintile of the predicted probability that the firm is engaged in tax sheltering, calculated following Wilson (2009):

$$SHELTER = -4.86 + 5.20BTD + 4.08DA - 1.41LEV + 0.76LAT + 3.51ROA + 1.72FI + 2.43R\&D$$

where *BTD* is total book-tax difference, scaled by lagged total assets (AT); *DA* is the absolute value of discretionary accruals from the performance-adjusted modified cross-sectional Jones model; *LEV* is long-term debt (DLTT) divided by total assets (AT); *LAT* is the logarithm of total assets (AT); *ROA* is pre-tax earnings (PI) scaled by lagged total assets; *FI* is an indicator variable equal to one for firms with foreign income (PIFO), and zero otherwise; and *R&D* is research and development expenses (XRD) scaled by lagged total assets;

APPENDIX I (continued)

TA_ETR	firm *i*'s mean industry- and size-matched GAAP ETR less firm *i*'s GAAP ETR, calculated following Balakrishnan et al. (2012). GAAP ETR equals the sum of total tax expense (TXT) from years *t* to *t*–2, divided by the sum of pre-tax income (PI) from years *t* to *t*–2. Mean industry- and size-matched GAAP ETR is the mean GAAP ETR for the portfolio of firms in the same quintile of total assets and the same industry as the firm *i*, where size and industry are sorted independently and industry is based on Fama-French 48 Industry Classes (Fama and French 1997);
ETR	sum of total tax expense (TXT) divided by pretax book income (PI) less special items (SPI) in year *t*;
CETR	sum of total cash taxes paid (TXPD) divided by pretax book income (PI) less special items (SPI) in year *t*;

Variables of Interest

PCD	indicator variable equal to one if year *t* has at least one board member who was previously employed by the government; and zero if year *t* does not have a board member who was previously employed by the government;
HIGH_PROFILE	indicator variable equal to one if a politically connected director served as cabinet secretary, senator, congressman, governor, president, or vice-president, and zero otherwise;
LOW_PROFILE	indicator variable equal to one for firm-years without a high-profile director, and zero otherwise;
AFFILIATE_1	indicator variable equal to one if a politically connected director's last party affiliation before leaving political office controls either the House, Senate, or White House in firm-year *t*, and zero otherwise;
NO_AFFILIATE_1	indicator variable equal to one for firm-years with no party alignment to the political party that controls the house, senate, or white house, and zero otherwise;
AFFILIATE_2	indicator variable equal to one if a politically connected director's last party affiliation before leaving political office controls both the House and Senate in firm-year *t*, and zero otherwise;
NO_AFFILIATE_2	indicator variable equal to one for firm-years with no party alignment to the political party that controls the house and senate, and zero otherwise;

APPENDIX I (continued)

AFFILIATE_3	indicator variable equal to one if a politically connected director's last party affiliation before leaving political office controls the House, Senate, and White House in firm-year *t*, and zero otherwise;
NO_AFFILIATE_3	indicator variable equal to one for firm-years with party alignment to the political party that controls the house senate, and white house, and zero otherwise;
LN_GOVT_TENURE	natural log sum of the politically connected director's years of government service;

Control Variables

Δ*NOL*	change in tax-loss carryforward (TLCF) from *t*-1 to *t* scaled by total assets at the beginning of the year (AT);
GEO_SEG	logarithm of 1 plus the number of geographic segments (GEOSEG) reported in the Compustat Segment File;
EQINC	equity earnings in subsidiaries (ESUB) scaled by total sales (SALE) in year *t*. Missing values of equity earnings in subsidiaries are set to zero;
INTANG	intangible assets (INTAN) in year *t* scaled by total assets at the beginning of the year (AT);
PP&E	net property, plant, and equipment (PPENT) in year *t* scaled by total assets at the beginning of the year (AT);
Δ*GDWL*	change in goodwill (GDWL) scaled by lagged total assets (AT). If change in goodwill decreases, then change in goodwill is set equal to zero;
NEW_INVEST	new investments, calculated as research and development expenses plus capital expenditures plus acquisitions less sale of property less depreciation and amortization (XRD + CAPX + AQC – SPPE – DPC), scaled by lagged total assets (AT);
CASH	cash holdings at the end of the year (CHE) scaled by lagged total assets (AT);

APPENDIX I (continued)

HHI	Herfindahl-Hirschman index calculated as the sum of the squares of each industry segment's sales as a percentage of total firm sales in year *t*. Industry concentration is measured with net sales (SALE);
INDUSTRY	indicator variable equal to one if firm *i* is a member of industry *j*. Industries are defined based on Fama-French 48 Industry Classes (Fama and French 1997);

Selection Model Variables

ROA	ratio of pre-tax income (PI) in year *t* scaled by total assets at the beginning of the year (AT);
NOL	indicator variable equal to one if a firm has a tax loss carryforward (TLCF) during year *t*, zero otherwise;
%FASSETS	foreign assets, calculated following Oler, Shevlin, Wilson (2007);
SIZE	natural log of market value of equity, measured as price per share times shares outstanding (PRCC_F x CSHO) at the beginning of year *t*;
LEV	sum of long-term debt (DLTT) in year *t* scaled by total assets at the beginning of the year (AT);
MTB	market-to-book ratio for the beginning of year *t*, measured as market value of equity (PRCC_F x CSHO) divided by book value of equity (CEQ);
PCT_IO	average percentage of shares held by institutional investors in year *t* (Thomson Reuters database);
%POL_CONNECT	percentage of politically connected firms in firm *i*'s industry group;

Other Variables

PCD_TOTAL	number of politically connected directors in year *t*;
LN_PCD_TOTAL	natural log of number of politically connected directors in year *t*;
PCT_PCD	the ratio of the total number of politically connected directors divided by total board size in year *t*;
HIGHPROFILE_MORE	indicator variable equal to one if a politically connected director served in more than one "*high_profile*" position, and zero otherwise;

APPENDIX I (continued)

CAB_SEC	indicator variable equal to one if a politically connected director served as a member of the president's cabinet, and zero otherwise;
SENATOR	indicator variable equal to one if a politically connected director served as a senator, and zero otherwise;
REP	indicator variable equal to one if a politically connected director served as a member of the House of Representatives, and zero otherwise;
GOV	indicator variable equal to one if a politically connected director served as a state governor, and zero otherwise;
PRES_VP	indicator variable equal to one if a politically connected director served as a U.S. president or vice-president, and zero otherwise;
AFFILIATE_SENATE	indicator variable equal to one if a politically connected director's political party affiliate controls the Senate in year *t*, and zero otherwise;
AFFILIATE_HOUSE	indicator variable equal to one if a politically connected director's political party affiliate controls the House of Representatives in year *t*, and zero otherwise;
AFFILIATE_WHOUSE	indicator variable equal to one if a politically connected director's political party affiliate controls the White House in year *t*, and zero otherwise;
AFFILIATE_CONGRESS	indicator variable equal to one if a political director's political party affiliate controls the Senate or House, and zero otherwise;
DUAL_AFFILIATE	indicator variable equal to one if more than one political director from different party affiliations serve simultaneously on the board, and zero otherwise;
TAX_EXPERT	indicator variable equal to one if a political director served on the Senate Finance Committee, Joint Committee on Taxation, or House Ways and Means Committee, or served as IRS Commissioner, and zero otherwise;
NO_TAXEXPERT	indicator variable equal to one for firm-years with no tax expert, and zero otherwise;

APPENDIX I (continued)

TAXEXPERT_MORE	indicator variable equal to one if a politically connected director served in more than one "*tax expert*" position, and zero otherwise;
WAYS_MEANS	indicator variable equal to one if a politically connected director served on the House Ways and Means Committee, and zero otherwise;
FINANCE_CMTE	indicator variable equal to one if a politically connected director served on the Senate Finance Committee, and zero otherwise;
JCT	indicator variable equal to one if a politically connected director served on the Joint Committee on Taxation, and zero otherwise;
IRS_COMM	indicator variable equal to one if a politically connected director served as IRS Commissioner, and zero otherwise;
GOVT_TENURE	number of years a politically connected director served in the government;
BOARD_TOTAL	number of directors on the board in year *t*;
LN_BOARD_TOTAL	natural log of the number of directors on the board in year *t*;
BOARD_TENURE	number of years a director served on the board.

[a] Unless otherwise noted, variables are measured on an annual basis.
[b] Compustat data items are in parentheses.
[c] All continuous variables are wisorized at the 1st and 99th percentiles.

APPENDIX II

Additional Variables used in Kim and Zhang (2016)

Variable Definitions[a, b, c]

Control Variables	
STDROA	standard deviation of *ROA* from years *t* to *t* – 4;
BUS_SEG	logarithm of 1 plus the number of business segments (BUSSEG) reported in the Compustat Segment File;
DACC	absolute value of discretionary accruals, estimated from the performance-adjusted modified cross-sectional Jones model;
DUAL_CLASS	indicator variable equal to one if the firm has more than one class of stock, zero otherwise.

[a] Unless otherwise noted, variables are measured on an annual basis.
[b] Compustat data items are in parentheses.
[c] All continuous variables are wisorized at the 1st and 99th percentiles.